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ORIGINAL ARTICLES.

THE TEACHING OF SURGERY; WITH ESPECIAL REFERENCE TO DIDACTIC METHOD.*

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As it appears to me, one cannot rationally consider the comparative value of definite integral parts of any plan of complete teaching of a special topic, or of doing anything else, without first comprehending a general system of action for the purpose, with which the specially designated parts may logically and effectively blend. The fact that a chain can be no stronger than its weakest link is not lessened in force by the idea that an isolated link may be strengthened without materially adding to the reliable strength of the chain itself. Whether or not it is possible so to construct a metaphorical chain of surgical teaching that its various links will bear without parting the tug of practical experience is of course a matter of opinion, a matter of proper tempering if you please, the same as in the instance of a chain of base material.

Everything in this life has a language peculiar unto itself, a manner of expression and a feature significant of its individuality. In the common method of expression the word "language" relates to human articulate speech, a form of speech either acquired as the result of imitation fostered by the urgent needs of intimate contact of the knowing with the ignorant, or which is wholly or in part the outcome of didactic method gained through the means of competent agents selected for the purpose. All animate beings have ways of expression by means of which they hold communion with each other, and whereby they are severally distinguished from each other. More broadly considered, language may embrace every manner of communication by means of which facts relating to things are expressed. Therefore disease has a language, commonly known as the signs and symptoms of disease. Health also has a language, and health and disease are distinguished from each other by the well-established comparative differences in their respective manners of utterance. Each disease and each surgical condition has its distinctive speech of signs and symptoms, by which one is known from another. It is hoped that every hearer will now note that medicine and surgery are here linked together at the outset, with the idea of emphasizing the fact that their respective languages are not illogically dissimilar, and that wisely to employ surgical methods of cure, the surgeon should be as well a good medical interpreter as an expert technician. I know of nothing extant more subversive of the professional dignity and self respect of a conscientious surgeon than to heed unquestioned a request to operate on a patient for the relief of a surgical condition of which he himself has not mastered the history. But enough of this.

As already observed, human beings and also their physical afflictions—medical and surgical alike—have each a distinctive language. That of the human race is instilled both by the subjective and objective methods of teaching. The subjective—the didactic method—being employed for the purpose of laying a broad, systematized foundation of enduring intelligence to which the objective—the pseudoclinical method—promptly adds fitness for use. It seems to us that those engaged in "the teaching of surgery" as exemplified by the scientific language of that calling can do no better in achieving their purposes than first laying it a broad and comprehensive foundation, along parallel lines of action, such as is made by competent lay teachers in the exercise of a comparatively similar feature of general instruction, and finally wisely completing this structure by means of practical educational methods that establish its fitness for the just demands of life's activities.

In our opinion the practical values of the utterances of surgical speech can be best estimated in all their features by a studious inquiry based on the following brief syllabus of a surgical case of whatever nature. I think it proper to say at this time that the succeeding synopsis has been used by me in systematic surgical instruction for many years with but slight deviations. Also that the members of the class are required to copy and apply it to their text-book studies in surgery, grouping the facts as they read, and writing them at once under the relative headings of the classification. At once please understand that much of the following phraseology is of the kind employed in impressing upon the students the rationale and importance of this plan of instruction, and therefore need not be regarded as addressed directly to those of adult growth.

This classification is made up of 11 component parts so arranged numerically as to be in *a logical succession of interdependence.* They are arranged in the following order:

1. The Definition.
2. The Anatomy { Histological; General; Regional { Embryological; Surgical.
3. The Pathology { Microscopical. Gross
4. The Classification.
5. The Causation.

* Read before the American Surgical Association.

6. The Symptoms.
7. The Diagnosis.
8. The Complications.
9. The Treatment.
10. The Prognosis.
11. The Sequels.

Definition.—The expression "definition" is obviously placed at the head of the list that the student may prepare himself to know whereof he speaks. With this object in view, each student is required to present a comprehensive definition of the topic under consideration, which definition preferably should be the product of his own conception, rather than one gleaned from text-book lore. In the construction of a definition by the former means intelligent thought is required, while in expressing the latter a retentive memory alone may suffice. Let any who may regard this requirement as a too primary matter rapidly write their respective ideas of the definition of some well-recognized surgical topic, and I will risk the prediction that not all of the forms of expression will bear intelligent relationship to each other, and that many of them will be sadly awry and contrary to the diction of Dunglison.

Anatomy.—The anatomy is placed second in the list because one ought to know the normal arrangements of the disordered or impaired tissues, so that he may properly locally estimate the nature, degree, extent and prospective outcome of a surgical infliction, also the importance of the proper estimate of congenital features. As the experienced hunter estimates the chief peculiarities of the game he seeks by the distinguishing features of the imprints of its footfalls, so the educated surgeon ought to estimate the chief peculiarities of a surgical condition by its imprints on the affected parts.

Pathology.— The pathological effects of disease and injury on human tissues constitute an important part of their history, and exercise great influence on the question of the life of the patient and the integrity of the part. It seems to us as fitting that the pathological aspect of a case should go hand in hand with the normal, so that a keener appreciation of the value of each can be readily noted by comparison.

Classification.—The classification is next in order, and is so placed because it is regarded as very important that one shall know the different varieties of the subject under examination, whether it be of an acute, subacute, or chronic form of action, and of local or general significance. That the individual phenomenon of the various forms of a definite surgical infliction often exercises a decisive influence on determining the cause, the importance of the symptoms and signs, the present and prospective complications, the manner of treatment, and the final prognosis, to say nothing of the sequels that may follow, cannot be gainsaid.

Causation.—The causation falls next in order, since the policy of intelligent action requires that the removal of a cause should always, when feasible, constitute the first measure of treatment. The ascertaining of the cause and the naming of a special condition comprehend the taking of a complete history of a case, without a suitable knowledge of which neither can a proper diagnosis be made nor a rational plan of treatment be determined. The expression, the predisposing causes, the exciting causes, and the general and local causes are sources of abundant instruction to the inquiring man, when they are thoroughly interrogated. Then he can, if he wishes, judiciously enlighten the solicitous friends regarding the prognosis and sequels of the event.

Symptoms and Signs.—The symptoms and signs fall naturally into place here, since they precede diagnosis, complications, treatment, and prognosis, as logically as they follow the classification and causation of things. As has already been expressed, symptoms and signs are the language of disease and of surgical conditions; also, each surgical plight has its distinctive form of expression, by means of which it may be known from every other surgical plight. And in many instances it is only by careful and learned methods of comparison of the trifling differences in the manner of expression of the various surgical states that one is able to distinguish each by name, or, in other words, make a diagnosis. By a studious analysis of the differences in the language of infirmities one may become fully as able by this means alone to recognize the name of a definite infirmity as one might be in a similar manner to determine the name of a friend in concealment. By extended comparison of the signs and symptoms of each, one recognizes not only different surgical conditions, but also different phases of each condition, thus developing the power of diagnosis and of prognosis as well. Symptoms are easily and understandingly classed into the local and general symptoms, thus aptly fitting the phases of local and general causes, and founding the wisdom of the local and general plans of treatment already mentioned.

Diagnosis.—The diagnosis naturally follows close upon the heels of the evidence bearing on the identity of the affliction. Therefore by diagnosis one may recognize the disease and properly treat it. Diagnosis may be made either by directly considering the symptoms as applied to a definite surgical state or by a process of exclusion, that is, deciding what it may be by determining what it is not. If the language of a surgical case be not correctly interpreted the resulting errors in diagnosis and treatment may lessen alike the reputation of the surgeon and the longevity of the patient.

Complications.—The consideration of complications ought to precede the treatment, because complications modify disease, and therefore their influences should be considered in formulating the treatment of such cases. In fact, the complications may be of such a nature as to become the major element of the trouble and exercise the dominating influence in estimating the prognosis. One hears so often the statement that "if such or such a complication had not been present the pa-

tient would have recovered." In fact, the too frequent lay satirical expression, "The operation was successful, but the patient succumbed!" is often prompted and is kept alive by such occurrences. No person should be subjected to operative interference without a clear conception on the part of the surgeon, and perhaps of the patient and friends, of the contributive lethal importance of both present and prospective complications.

Treatment.—The treatment is properly placed between the series of truths upon which it depends, *i.e.*, the causation, the symptoms, the complications, etc., and the prognosis and sequels, the nature of the former sometimes largely modifying the treatment, while the significance of the latter may be dependent upon it. In the absence of a proper knowledge of the important bearings in a case of the foregoing constituent parts of its investigation, the treatment is misfitting, often void and perhaps even dangerous, especially in distinctively surgical therapeutics. Since it is undeniable that the results of the treatment of surgical conditions appeal strongly to the lay mind and to the conscience of the surgeon, both wise policy and honorable principles demand sturdy investigation of all matters relating to a case that can in any way influence recovery.

Prognosis.—Since prognosis is based upon the combined influence of each of the preceding subdivisions of a topic, the placing of prognosis so that a seeming prophecy may, after all, be only the embodiment of a limited number of rational conclusions appears to be both logically and practically correct. The friends especially appreciate the importance of prognosis, and emphasize their personal interest therein by frequently asking, "Will he get well?" "can the limb be saved?" etc., etc. Wise indeed is he who can so combine his knowledge, discretion and sympathy as to answer satisfactorily such questions without a subsequent loss of personal station and professional reputation.

Sequels.—The sequels, as the word indicates, form the last of the series, here placed for obvious reasons. The ability at the outset of a case to estimate the prospective occurrence and the importance of sequels is present in direct proportion to the attendant's understanding of the importance of the effects of disease and injury, and of their causation, and to his ability to administer proper treatment. The sequels of surgical cases too often humiliate the medical profession and enrich the legal.

It is thus that we begin and may continue the direct instructions in surgery. Already, of course, the students have qualified themselves in the various primary branches for the proper utilization of this plan of advanced training. For every individual topic consdered n lessons or recitation or conference, along didactic text-book lines of action, the use of this synopsis is more or less closely adapted to enable the student to lay for himself an intelligent, orderly and logical foundation, and fit him to tell connectedly, without hesitation, what he may know of any surgical subject thus studied. The special advantages of this line of treatment of a topic are quickly realized by those who later may participate in competitive examinations, or in discussions where they are expected, if not required, to state their entire knowledge of a topic. As it appears to me from this standpoint, the didactic foundation plan of instruction is now substantially laid. In fact, by force of a retentive memory alone one might quite readily gain a degree, provided practical demonstrations of things were omitted in the final examinations.

Now, permit me briefly to call your attention to the next step employed, as we think, to fit the pupil for the professional activity of life. In this instance he is treated as he hopes later to be affected by the exigencies of his professional environments; that is, he is given an opportunity practically to determine the cause and prescribe for the relief of human suffering in the presence of the patient. In this latter method of instruction the patient and the student are brought face to face, the former as the embodiment of a professional problem, for the solution of which the latter is called to apply the principles of action already taught him for the purpose. The student is required, under personal observation or in writing, to ascertain along established lines of investigation a complete history of the case, thereby determining the presence and establishing the significance of the various elements of causation. This investigation discloses the symptoms and signs of the case—its language—enabling the investigators to diagnosticate it—that is, call it by name—to classify it, to determine the presence of complications, estimate the importance of the present and prospective anatomical and pathological changes, and finally logically lead to adopting the best of local and general treatments, thus deciding in a substantial manner the prognosis of a case, also the outlook for sequels and their significance. This, the finishing, fitting course in the plan of surgical teaching is clinical in all essential respects, and, as may be noted, symmetrically fits the foundation structure already laid by didactic effort.

I have simply framed and welded the two together without entering much into details, because of lack of time for the purpose. Whether recitations or lectures shall be chiefly employed in imparting the basic attainments depends, in my judgment, more upon the capacity of the respective participants—the teacher and the student—than upon exercising a hard and fast rule referable to either plan of teaching. In estimating the comparative worth of these plans it should be remembered that not all who lecture impart information; nor do all who listen acquire knowledge. The lecturer ought to fertilize the student mind with important facts, lessening his labors and increasing his interest by judiciously distinguishing the relevant from the irrelevant facts, and emphasizing their respective importance to the educational structure by apt illustrations. The medical tutor may achieve the same

aim, provided he have an equal experience and the knowledge befitting the labor. In the latter instance, however, the student, without previous explanation of his tasks, will most likely have given undue time and effort to subordinate facts. It therefore follows that neither plan should be employed to the exclusion of the other, and that each should be practiced in accordance with the several capacities of all concerned.

Finally, permit me to say that, in my judgment, these affirmations are true: (1) That a thorough didactic foundation is absolutely necessary for the proper attainment of surgical knowledge; (2) that clinical teaching fits the student for the intelligent use of didactic facts; (3) that didactic teaching with limited clinical opportunity begets ponderous theorizing with a minimum of fertile practicability; (4) that clinical teaching with limited didactic opportunity begets much of unreasoning imitation with limited logical deduction.

CONTRIBUTION TO THE DIAGNOSIS OF RENAL CALCULUS.

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WHILE it is no doubt true that by means of radiography we are enabled to diagnose the presence or absence of renal calculus with a far greater degree of certainty than was formerly the case, it is also true that in the presence of a *negative* radiographic result there frequently must remain an element of doubt concerning the absolute correctness of the negative diagnosis, even where the examination was made by expert radiographers. In the latter case the use of the wax-tipped ureteral bougie, or the metallic ureteral sound with a diaphragm at the outer end, as proposed by Kelly, may aid us.

The measure described below has, so far as I know, not been proposed before this, and is intended only as an additional aid in the diagnosis of those cases of pyelitis in which radiography leaves us in doubt as to the presence or absence of a calculus. Its intention is to repeatedly distend the renal pelvis with some bland, sterile fluid, and by this means to bring about movement of the calculus. Where a stone was present, in those cases in which it was applied, the procedure was followed within 24 hours by a distinct hematuria. Where no stone was present there was no hematuria. The method employed was as follows: A good-sized ureteral catheter was passed up into the renal pelvis, and through this tepid, sterilized one per cent. boric acid solution was gently injected until the patient complained of a sensation of pressure in the renal region, usually about 30 c.c. being required. The fluid was then allowed to flow off, and the maneuver was repeated until 250 to 300 c.c. in all had been employed.

Altogether, it was employed in five instances, upon four cases of pyelitis suspected to be due to calculus. In none of these was a radiograph taken prior to the procedure, while each case was controlled by subsequent X-ray examination. In two, as a result, a positive diagnosis of calculus was made, which was confirmed by a subsequent radiograph in one instance, and by operation in both. In the second of these two cases, repeated X-ray examination by an expert radiographer would not permit of positive corroboration by this means. In three instances a negative diagnosis was made, to be corroborated by radiography in two instances, and by operation in the third.

The cases are reported below. For permission to examine and report Cases II, III and IV, I am indebted to Dr. J. Van der Poel, in whose service at the University and Bellevue Medical College Dispensary they occurred. Case I. was kindly referred to me by Dr. McInerny. The radiographs were made by Mr. Caldwell of the above College, to whom I am indebted for the skill and care exhibited in his share of the work.

Case I.—S. F. L., twenty-six years old.

February 26, 1901: In July, 1899, passed a small calculus. About two weeks later cystitis, accompanied by some urethral discharge (no exposure to gonorrheal infection). Preceding this occurrence patient had complained of colicky pains in the left renal and ureteral regions. The urine has remained turbid ever since, and has been at times slightly tinged with blood. Vesical irrigations have produced only temporary improvement in cystitis. About four months ago patient had a similar attack of colic, but passed no calculus. At present urination is increased in frequency, both day and night, and is accompanied by burning and some pain in the perineal region, and followed by tenesmus. The urine is always turbid and at times slightly bloody. No backache; no headache. No loss of flesh. No febrile movement; no chills. No history of preceding gonorrhea or syphilis. Father died of phthisis.

Cystoscopy reveals inflammation over the trigone and lower sphincteral margin. On the left posterolateral portion of the bladder-wall is a large area of cystitis with ulceration. At several other points over bladder-wall, smaller inflammatory areas.

Catherization of ureters: Urine from left kidney distinctly turbid. No albumin; phosphates present in excess. Sediment contains few pus-cells; red blood-corpuscles (probably due to slight trauma of ureter by catheter), no casts, many pelvic and ureteral epithelia. Urine from right kidney slightly turbid, due to red corpuscles (trauma), and a few epithelia of pelvic or ureteral origin. No casts, no albumin; excess of phosphates.

No tubercle-bacilli found in urine of either kidney or bladder, on repeated examinations.

Therapy.—For the present, vesical irrigations; internally, urotropin.

March 29: Treatment has not made much change in the character of the urine, although the other symptoms have abated somewhat.

Cystoscopy shows some improvement in the inflammatory areas. Observation of the activity of the ureters shows that while the right ureter discharges clear urine freely, the left discharges none during the period of examination, although ureteral peristalsis is active.

April 6: Catheterization of left ureter and renal pelvis shows no appreciable obstruction along course of ureter. Urine flows slowly, however, and is about as turbid as the bladder urine. Sediment consists of phosphates, calcium oxalate crystals, epithelia, pus-cells, red corpuscles and myriads of bacteria—no tubercle-bacilli, however. Irrigation of pelvis and ureter with 1-20000 nitrate of silver solution.

Irrigation of pelvis repeated on April 13, 20, 27 (when numerous small shreds came away), May 4 and 11, with 1-20000 solution; May 18, 22 and 25, with 1-10000 solution, during which period of treatment the urine has grown decidedly clearer, and contains fewer shreds. Irrigations continued, with same strength of solution.

June 1: Cystoscopy still shows two ulcerated, inflammatory areas on the lower lateral portion of the bladder-wall.

Irrigations repeated on June 1, 8, 14, 20 and 22, with continuation in the clearing up of the urine.

June 25: The irrigations prior to June 22 had been made without decided distention of the renal pelvis with fluid. That of June 22 was employed to distend the pelvis, as before described. During its progress, it was noticed that the return flow was repeatedly, suddenly, sharply and completely arrested by some body in the renal pelvis, the stoppage of the flow being also accompanied by a distinct sensation to the fingers holding the ureter catheter (the cystoscope was always removed prior to the irrigations, and the catheter left *à demeure* during the continuance of the washing). It was supposed, at this time, that the arrest was due either to some flap-formation, or to a larger, partly adherent shred. This morning, on arising, the patient noticed that the urine was dark-brown and very turbid, and contained clots. Yesterday, on vesical irrigation, the urine was still clear, and no reaction followed. The coloration and turbidity of the urine were found to be due to blood. No "thread-clots" were found in the specimen of the morning's urine brought, nor in that passed for examination. The latter was still darker than usual and turbid, due to the presence of blood. All local treatment was suspended until June 29, and rest, with continuation of the internal treatment, ordered.

June 29: Cystoscopy reveals no cause for the recent hemorrhage. Ulcerations are, on the contrary, smaller than before. Pelvic lavage, as prior to June 22. No hemorrhage followed.

July 11: Cystoscopy shows conditions same as on June 29. Lavage followed by no hemorrhage. Provisional diagnosis of pelvic calculus made.

July 20: Phloridzin test.—Phloridzin, 0.005 in solution, injected, under aseptic precautions, into the dorsal region. After 15 minutes, catheterization of both ureters. Urine collected simultaneously.

Left Kidney: Urine turbid (pus). Sugar, $^1/_8$ per cent. *Right Kidney:* Urine clear. Sugar, $^2/_7$ per cent.

July 27: Radiograph (Mr. Caldwell) reveals presence of a calculus in the left pelvis. Patient referred to Dr. C. N. Dowd for nephrotomy.

Operation by Dr. C. N. Dowd July 28. Palpation of the exposed kidney failed to reveal any calculus. On incision and palpation of the renal pelvis, however, a calculus was detected in the lower portion, and removed.

October 7: After operation the urine did not clear up satisfactorily, and is still turbid, and urination still more frequent than normal. Vesical irrigations begun again.

October 12: Ill-defined pains in both renal regions, along ureters and over bladder during the past week. This afternoon passed a small calculus-fragment.

October 22: Urine much clearer.

November 3: Cystoscopy still reveals the presence of the ulceration on the left vesical wall. The left ureter is seen to discharge turbid urine, the right clear.

December 20: Several attacks of renal colic in past few days, with slight chills and febrile movement. Pelvic irrigation. Urine obtained by ureter-catheter swarming with micro-organisms.

December 22: Reaction following last lavage, temperature rising to 103.4° F. at 4 P. M. Well-marked tenderness over left kidney. Patient admits not having taken urotropin during past month.

Under appropriate treatment, the temperature soon reached the normal and remained there, and the tenderness disappeared.

January 7, 15 and 22, 1902: Pelvic irrigations, with distention; caused no hemorrhage, were followed by no reaction.

January 25: Renal colic, with slight rise in temperature.

January 29: Has been feeling well. Temperature normal since January 27. Neither pain nor tenderness. Urine clearer.

January 31: Renal colic. Urine much more turbid. Yesterday temperature fluctuated between 99° F. (A. M.) and 101.8° F. (9 P. M.). To-day, between 101° F. (A. M.) and 102.6° F. (12 P. M.).

February 1: Temperature ranged between normal (12 M.) and 99.8° F. (6 P. M.).

February 2: Temperature normal (A. M.), 101.2° F. (12 P. M.).

February 3: Temperature 98.6° F. (A. M.), 97.8° F. (6 P. M.), 98.8° F. (10 P. M.).

February 4: Temperature normal (A. M.), 104° F. (6 P. M.).

Patient referred back to Dr. Dowd, for operation, if necessary.

February 10: Nephrectomy by Dr. Dowd. The kidney shows several abscesses.

May 26: Recovery uninterrupted, patient

leaving the hospital March 15. Since then the urine has been slowly but steadily growing clearer. General condition excellent.

That the primary irrigations of the pelvis caused no hematuria I believe to be due to the fact that distention of the pelvis was not employed until June 22. It will also be noted that no hemorrhage followed the distention after the removal of the stone, although the maneuver was repeated.

Case II.—Z., Thirty-four years old.

July 1, 1901: Illness dates from about February, 1900. During this time has noticed pain preceding and following urination. Some pain in the left renal region, especially when walking. Urine said to have been somewhat diminished in quantity, always turbid, and sometimes reddish in color. No history of renal colics. Patient anemic. Turbidity of urine now due to pus. Cystoscopy reveals a normal bladder, with the exception of a moderate hyperemia over the trigone. Catheterization of both ureters. (Unfortunately, neither urinalysis was satisfactorily made in the laboratory.)

July 18: Irrigation, with distention, of left renal pelvis. Considerable detritus comes away.

July 23: Patient experienced, July 19, pain in the left renal region, extending down along the course of the ureter into the bladder and penis. Also slight indefinite pain on right side. Distinct hematuria, lasting during July 19 and 20, accompanied by some headache, anorexia and vomiting. July 21, condition again normal.

July 30: Radiographs (Mr. Caldwell), July 25 and 30, both show three very light, indistinct shadows. Radiographer not willing to make positive diagnosis of calculi.

Diagnosis of calculus in left renal pelvis made as result of hematuria.

August 8: Phloridzin test, with simultaneous catheterization of the ureters, gives the following result: Left kidney—urine distinctly turbid, the turbidity being due to the presence of much pus, isolated red corpuscles, degenerated cuboidal epithelia and a very large number of micro-organisms. Sugar, 1/7 per cent. Right kidney—slight trace of turbidity, due to the presence of isolated red and white corpuscles, epithelia (chiefly round and oval, and presumably of ureteral origin) and micro-organisms. Sugar, ½ per cent.

Subsequent operation by Dr. Brewer revealed the presence of three calculi.

Case III.—E., twenty-seven years old.

May 16, 1901: During the past 1½ years has complained of dull pains extending from the right renal region downward into the vesical, and sometmes to the penis. Following the pain (in from a few minutes to several hours), notices a few shreds or clots of blood in the urine. Pain is relieved by bending toward the affected side. Has lost considerable flesh during this period. Urine turbid. Sediment contains much pus and blood, and some bladder-epithelia. No renal epithelia nor casts.

June 4: Cystoscopy shows the trigone to be somewhat inflamed. On the left lower, right lower posterior and right upper anterior portions of the bladder-wall are circumscribed areas of inflammation, the surface of which is roughened and ulcerated.

July 23: Urine still turbid, in spite of local bladder-treatment. Urine obtained by ureter-catheter from each kidney separately contains few red and white corpuscles, epithelia from ureters; no casts, no renal epithelia, no tubercle-bacilli.

September 5: Conditions still the same. Irrigation, with distention, of right renal pelvis. No hematuria followed.

September 10: Irrigation, with distention, repeated. No hematuria.

September 19: Radiograph (Mr. Caldwell) negative.

Case IV.—M., thirty years old.

August 1, 1901: During the past 2½ years has noticed pains, at times, in the right renal and hypochondriac regions. Also, during the past six months, at times hematuria. This, when it occurred, was neither accompanied nor preceded by pain. Some loss of flesh during the past year. Urine turbid with pus and mucous.

August 13: Cystoscopy reveals slight congestion of the trigone. Catheterization of the right ureter reveals an obstruction (valve or stricture?) in the lower portion. Urine turbid (pus and epithelia). Urine from the left kidney is clear and, on examination, found to be normal.

September 19: Irrigation, with distention, of the right renal pelvis, was practiced on September 3, 10, 14, 17 and 19, no hematuria following in any instance.

September 26: Radiograph (Mr. Caldwell) negative.

It will be seen that, while the ordinary irrigations of the pelvis were, in no instance, followed by hematuria, in each instance where a calculus was later proven to be present irrigation with distention was promptly followed by hematuria; furthermore, that in those cases in which the radiograph revealed no calculus, as also in the first case, after the removal of the calculus, repeated irrigation with distention caused no hematuria.

It appears to me that the probable explanation of the occurrence of the hematuria is that, through the distention of the pelvis, the calculus is dislodged and, most likely, caused to shift its position somewhat; that, as a result of this, a slight abrasion of the tissues follows, with consequent escape of blood. The hematuria is distinct, not merely microscopic.

The present preliminary communication is presented simply as an observation, and not as a recommendation for routine procedure. Whether, when properly carried out, it will give us additional and positive information in all those cases in which the X-ray leaves us in doubt, remains for further observation to show. The results up to the present lead me to hope that it may prove of some value.

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THE CRIMINAL EQUIVALENT OF INSANITY.

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MORAL insanity, a subject of interest alike to those who study ethics, psychiatry and criminology, has no satisfactory place in the classifications of any of the three. Its real existence is demonstrated by history and the daily reports of the police courts, and to a less extent by the clinical records of insane asylums.

The commonest type of moral insanity is quite as familiar to the general public as it is to the medical profession. The details may be filled in by each individual from his own experience. This type is merely an unusually marked case of the "bad" or incorrigible boy.

Case I.—A., aged sixteen years. The father was alcoholic, and is now dead. The mother is a hysterical woman of wealth, who is now remarried. At the age of ten years A. was merely a "spoiled child," not more troublesome than the average boy of that type. Each successive year he gave his family more and more annoyance from his incorrigible temper. He has always been called a "nervous child." When old enough to go to school he gave no end of trouble to all his teachers from mental backwardness and disobedience. Later he was sent to one and another fashionable boarding-school, but had to be removed from each in turn, either because he "did not get along" or on account of his general misbehavior. He is now a young man of sixteen years, with unlimited pocket-money, developing bad habits rapidly. Recently, when corrected by his mother, he struck her; he frequently insulted her, and once threatened her with a knife.

This case is typical in that, besides failure in moral traits, a certain amount of mental backwardness is exhibited throughout the school years. In a majority of cases boys of this sort show not only mental instability, but also mental feebleness. The gradual increase of violent and dangerous symptoms, in excess of the ordinary passionate outbreaks of a "bad boy," may become evident at the approach of and during puberty and adolescence.

George F. Still, in a recent study of "Abnormal Psychical Conditions in Children," in a series of 90 imbeciles or defectives, from three to twelve years of age, found in 23 decided lack of moral control. These qualities he classified as follows: (1) Passionateness; (2) spitefulness or cruelty; (3) jealousy; (4) lawlessness; (5) dishonesty; (6) wanton mischievousness or destructiveness; (7) shamelessness; (8) sexual immorality; (9) immodesty.

Except in the lower grades of idiocy and imbecility, in which the cognitive relation to environment is absent or extremely defective, there is not necessarily any direct proportion between the moral limitation and the general intellectual limitation. No particular type of idiocy or imbecility can be specially associated with moral defect.

In a series of cases, changes in the moral nature more or less sudden were associated with physical disease, occurring in such varying conditions as tumor of the brain, hemiplegia, meningitis, epilepsy, head-injury and certain infections.

Defective moral control, apart from general impairment of intellect and apart from physical disease, is decidedly uncommon. Such cases may show either a morbid failure of development of moral control, or a loss of already acquired moral control.

The second type of cases illustrating moral insanity includes those in which moral and intellectual characteristics seemed normal during childhood, and in which at adolescence or later some accident or illness changes the mental and moral disposition, or the moral disposition alone, so suddenly and with so little obvious temptation that the name of moral insanity seems justified.

Case II.—This case will serve to illustrate the second class of cases. A young man, E. S., aged twenty-three years, had served for years as a lawyer's clerk, and had been a faithful, earnest young man, active in church and benevolent work. His work was thoroughly satisfactory to his employer, and his salary was steadily increased. In the fall of 1893 he disappeared from home and office for a week or two. When he returned his mental characteristics seemed to have changed. He was said in the office to be "flighty," and could tell no connected story of his week away. A fellow clerk spoke of him as follows: "When I entered the office of Mr. N. I found E. S. employed as clerk. He had charge of the details of the business. He had a most peculiar system in regard to letters. Every letter that went out was not only copied in the letter-book, but was also noted in a book of his own, and from these entered in some larger books, so that every letter that was sent out had six different memoranda made of it. Letters that came in were also noted in some similar manner. These books he kept to himself, and would let no one touch them. He was fond of holding conversations in low tones with some of his fellow clerks or with visitors, and used to assume airs of mystery and importance about the slightest matters. His mind worked slowly except in regard to writing, in which he had been trained. He was always a 'big talker,' boasting of his influence in church matters, and speaking of the number of important affairs he had to attend to. He finally broke down mentally, and was sent by his family to the insane asylum on Wards Island, where he was treated for insanity for two months. He gradually recovered, returned to the office, and seemed to be rational. But after his return he acted queerly. He did not talk much, and was more untidy in personal appearance. He provided himself stationery with the firm name printed on it. A day or two later he stole a check-book with his employer's name printed on the checks and disappeared."

Now begins a very interesting development of

this history. Within a few days the owner of the check-book received notice that checks were coming in made out to the order of E. S., signed with a forged signature of his former employer, and a very clumsy forgery at that. These checks he succeeded in getting cashed by friends and clients of his employer, or at large department stores of the city. He left town and went South. His movements could be traced by the stream of forged checks that came in. He went to Baltimore, Washington and Chicago, and then returned to New York. He had evidently prepared an extensive list of all the business friends, correspondents and college friends of his employer in those cities. He had a definite route and an ingenious method. He would represent himself as a clerk or relative of his former employer, and would buy a large order of goods. Presenting a large check, he was invariably given all the goods and all the money he wanted. This scheme was worked until he returned to New York and was caught. He was arrested, but employed well-known lawyers, and after careful examination was sent to Matteawan Asylum for Insane Prisoners.

After his arrest he talked in a rambling sort of way. He said he was "keeping two girls," and that he had "been having a good time drinking." He seemed amused at his own shrewdness in cashing the checks. At his house were found a quantity of imitation office-paper of his former employer, which he had had printed; half a dozen memorandum-books, containing a complete record of his "business;" records of the forged checks and of the goods obtained and sold. He had kept a special set of accounts of the sums of money he had paid to prostitutes and other women under the headings of "Alice," "Maud" and other names.

When arraigned before Recorder Goff he attempted to defend himself, speaking so incoherently that he was stopped. He was sent to Matteawan. A letter from the Medical Superintendent concerning him is as follows. "E. S. was admitted to Matteawan State Hospital in August, 1895, having been charged with forgery in the second degree, but having been found to be insane. At the time of his reception he was extremely talkative; his egoism was greatly developed. He stated that he was a lawyer, a stenographer, that he had studied theology and medicine, and he offered to assist us in any way should we need his services. He rambled from one subject to another in a very incoherent way, and was mentally confused. He claimed that he was Corbett, but was not sure of his identity, stating that some people believed he was Corbett. His flow of words was rapid and incessant. He was at times laughing, winking his eye and shaking his head in a knowing manner. His talk was disconnected, running on a great variety of subjects. His actions and manner indicated an excited state of mind. He was careless of his personal appearance, allowing his hair and clothing to go disarranged. He paid little attention to remarks addressed to him, excepting that he followed directions when told to do anything. He was restless; his physical condition was only fair; his tongue was coated; he was constipated and sleepless. This condition continued for four or five months with varying degrees of improvement. He became more rational, though inclined to be inactive and indifferent. A year after his admission his family tried to remove him, but the Matteawan authorities were not quite ready to discharge him as cured. In November, 15 months after his admission, the indictment against him was dismissed by order of court and he was released in the custody of his friends. He soon left them, and started out in exactly the same line of criminal activity that he had followed before his treatment at Matteawan; the forging of checks and swindling operations were carried on until after a while he was again arrested and, in spite of defending himself adroitly, was sentenced to the Elmira Reformatory for forgery in the second degree.

Personally E. S. was rather shabby in appearance, wore glasses, and had a marked squint. But there was nothing in his appearance or actions but what usually characterizes an honest and faithful young man.

This case is of interest as showing the definite career of a "crook" carried on by a man who, from the standpoint of a student of mental disease, had been previously, or was at the time, positively insane. The attitude of the law in his case is shown by the fact that he was first sent to an insane asylum and discharged after a year, and later sent to prison by another judge for exactly the same offense.

The case presents the problem of criminal responsibility in definite form, and it is to the literature of criminal jurisprudence that one must turn to obtain a clear view of the relations of criminality and insanity. The development of the idea of *partial insanity* as distinguished from total insanity has been gradual, this partial insanity not being considered in the early years of criminal law sufficient to absolve a person from responsibility for his criminal acts, but rendering him worthy of punishment for these same acts. A man's intellect might not be sufficient to enable him to conduct his business affairs and to dispose of his property, yet sufficient to make him quite responsible for a criminal act. When the famous attack was made on the life of George III. a forward step was made in the trial of his would-be assassin. The man was acquitted in spite of his being conscious of the nature of the act before he committed it, and of evident design and cunning in planning and carrying it out.

In 1843 the noted murder trial of McNaughten, who shot the private secretary of Sir Robert Peel, resulted in the acquittal of the murderer on the ground of "the delusion held by the prisoner that the man he had shot was one of a set of men who, he believed, were following him everywhere, blasting his character and making his life wretched."

A statement of the limits of insanity as a defense was made to Parliament by a committee of justices in 1865. In it the following opinions were given: "To establish a defense on the ground of insanity, it must be clearly proved that at the time of committing the act the party accused was laboring under such defect of reason from disease of the mind as not to know what he was doing, or if he did know it, that he did not know he was doing what was wrong."

Much misunderstanding remained on the question of what attitude should be taken towards those who, suffering from a partial delusion as to facts, give way to it; if, for instance, a murder were committed because of the delusion of some imaginary injury to character or fortune. Has a man with an insane delusion the power to think and act reasonably? In other words, mental weakness and moral weakness became differentiated.

In the case of the State *vs.* Wier, 1864, the question of whether the accused had sufficient mental power to control the actions of his own disordered mind is to be noted.

In the United States there still remains a decided difference between the medical and legal view of insanity and responsibility. For instance, in Georgia and many other States, if a defendant could distinguish between right and wrong in the act charged he is responsible, although he suffer from mental aberration as to other matters. In Illinois and Delaware it is held that to excuse crimes it must appear that at the time of the commission of the offense the accused was affected by an *uncontrollable impulse* overruling his reason and judgment.

In the American and English Encyclopedia of Law the theory of responsibility is stated as follows: "The delusions which indicate a defect of sanity such as will relieve a person from criminal responsibility are delusions of the senses, or such as relate to facts and objects, not mere wrong notions or impressions of a moral nature, and the aberration must be mental and not moral to affect the intellect of the individual. A party acting under the influence of an insane delusion with a view of redressing some supposed grievance or producing some public benefit is nevertheless punishable if he knew at the time he was acting contrary to law. To constitute insanity there must be disease which impairs or totally destroys the understanding or the will or both. If the accused were under such defect of reason from defect of mind as not to know the quality of the act he was doing, or under such delusion as not to understand its nature, or not of sufficient consciousness to discern that his act was criminal, or was led by *uncontrollable impulse*, he is not responsible. It must be such as to render the accused incapable of governing his actions at the time, and so controlling as not to be resisted, creating an overpowering impulse to do the act. The circumstances of a person having acted under an irresistible influence to the commission of the crime is no defense if at the time he committed the act he knew he was doing wrong. It must appear that at the time he committed the act, the accused was affected by an uncontrollable impulse to do the act, overriding reason and judgment. A mere uncontrollable impulse of mind coexisting with full possession of the reasoning powers will not warrant an acquittal, for an irresistible impulse does not absolve the actor if at the time and in respect to the acts he could distinguish between right and wrong. The test of responsibility lies in the capacity of the person to commit or not commit the act. It is the capacity to distinguish between right and wrong with respect to the act and the absence of insane delusions respecting the same."

Moral or emotional insanity has no foundation in law; but if a person is not conscious of the moral turpitude of his act, or is deprived of his understanding and ignorant that he is committing an offense, the law will not infer a criminal intent, but in such cases the moral power must be so deranged as to overcome any resistence made by the intellect.

Our study of responsibility resolves itself into a psychological study of human reason, human will and sense-impressions. "It is possible," as Justice Valentine says, "that an insane uncontrollable impulse is sometimes sufficient to destroy criminal capacity; but this is possible only when it destroys the power of the accused to comprehend *rationally* the nature, character and consequences of the particular act or acts charged against him, and not when the accused still has the power of knowing the character of the particular act or acts and that they were wrong. The law will hardly recognize the theory that any uncontrollable impulse may so take possession of a man's faculties and power as to compel him to do what he knows is wrong and a crime and thereby relieve him of all criminal responsibility. Whenever a man understands the nature of an act and knows it is wrong it would seem that he ought to be held criminally responsible for the commission of it, if in fact he does commit it."

At this point the legal and the medical views begin sharply to diverge. The human will, normal and pathological, has been a matter of study for many years. Definite defects or diseases of the will are easily classified, and without attempting to define will, which may be taken in its usual meaning as something fairly well understood, they may be distinguished as follows: (1) Impairment of the will by defect of impulse, varying from conditions of mental sluggishness or irresolution not particularly uncommon to extreme types of laziness and irresolution, or finally to what is known as "abulia," which is a condition where the last vestiges of will-power seem to have disappeared. Patients suffering from "abulia" are suffering from a mental paralysis acting like a definite paralysis of the body. Inhibition is excessive. It may appear very much as a confusional insanity affecting impulses rather than ideas. (2) The will may be im-

paired through a morbid fear or dread, or through fixed ideas. These become the imperative conceptions so frequently met with on the borderland between sanity and insanity. (3) The will may be impaired through some excessive or uncontrollable impulse which may be instantaneous in its origin, or through something more gradual. This includes passionate outbursts even to the extent of homicide or suicide, sexual misdeeds and other crimes. (4) The will may be limited or practically destroyed by being controlled by the caprices of hysteria or hypnotism. This includes the most important and most modern phase of the study of the human will, and this is the relation of suggestion, which comes either from another person's mind or from the individual himself unconsciously suggesting to himself actions or thought. This last is called autosuggestion. In the mind of the writer it is one of the most potent sources of crime of all sorts, especially of those forms of crime which seem to be unreasonable.

Some of these pathological types of defective will may be better characterized as obsessions, meaning thereby a persistent and recurring idea. These may be: (1) Indifferent, and only troublesome from persistence; (2) those which excite well-marked emotion, such as grief or fear; (3) those suggesting some specific line of conduct, tending to become impulses, such fulminating or impulsive obsessions being ideas occasioned by automatic cerebral activities which are repeated with great frequency and which invade the personality.

These insane impulses result in vice and crime in direct proportion to the defective organization and the development of excessive susceptibility as modified by education and habit. Dipsomania and kleptomania may serve as the best examples of this tendency.

What is commonly called a perverted will, as for instance the sexual side of a man's nature preponderating over all other normal, mental and physical traits, is worthy of attention.

Such a lack of self-control or inhibition may give free rein to any dominant trait of character which may under right conditions be a thoroughly normal trait. It is in this loss of inhibition, self-control or will-power that we note the difference between normal minds and normal actions and minds or actions that are clearly criminal or insane. For example, take a most familiar characteristic, such as carelessness in business, or slight mistakes in judgment in business matters. In its graver form it may lead to defalcation or betrayal of a business trust which brings the individual into the criminal courts; or there may be insane delusions of a business nature, of exactly the type already described in this paper, which will bring him into an insane asylum. Another common trait is ordinary bad temper. In its extreme it produces graves acts of criminal violence, assault or maniacal fury, which practically show insanity. Unkindness or roughness to animal is common in children. In its more marked degree it appears as a cruel delight in torturing, which is one of the most certain marks of a degenerate child. In its worst form it appears as extreme cruelty, as among the more brutal types of criminals and certain lunatics who are monsters of cruelty.

Nothing is more universal than selfishness or vanity. As an instance of inordinate and insane self-esteem we will never see a more startling example than in the case of Guiteau, in whom it was indistinguishable from paranoia. Insane asylums are filled with examples of megalomania or delusions of grandeur. A child is timid or cowardly; a young man becomes a deserter from the army or a traitor, or develops mental depression, melancholia, with a constant fear of all things, or a fixed belief in personal unworthiness.

Plenty of men have fads or minor eccentricities which may be harmless or simply annoying. Exactly the same mental condition, with a slightly modified direction of thought and action, puts a man with little delay into a prison or an insane asylum. The mind may be equally affected in the different grades of actions referred to, but civilized society resents certain actions, and the law rules from the action rather than the mind. So in the end the question must come, Does the offender against law possess self-control, inhibition or will-power enough to obey law and to avoid wrong actions, or is he mentally defective in this special point of will?

All who have followed the practical work in recent scientific study of criminals know how much interest is taken in their physical abnormalities, which we call the physical stigmata of degeneration. The shape of the head, the position or malformations of the ears, eyes, palate, teeth or hands—these are studied with intense interest by all who have charge of criminals and the insane, as giving important hints of a probable hereditary or prenatal origin of their mental and moral defects. Besides these general physical stigmata of degeneracy, which are undoubtedly found with much greater frequency among the insane and among criminals than in any other class of the community, there are what are termed the mental stigmata of degeneracy. Without wishing to lay too great emphasis on a subject where much difference of opinion is permissible, it is well to emphasize these mental peculiarities, to many of which attention has already been drawn. These mental abnormalities or stigmata include many traits found among normal men, possibly among ourselves, such as egotism, vanity, self-conceit, selfishness, jealousy, religious emotionalism and various other traits of character. The individual having an increase of any one of these traits, or, what is also common, the complete lack of self-control or inhibition which readily exaggerates any positive trait of character, readily falls into criminal life, or eventually finds his way to a prison or an asylum. He may or may not have the physical stigmata of degeneration. As a rule the "born criminal" will have both.

Judged from their relations to moral and ethical subjects there are three classes of men: The moral idiot, who has not the sign of a moral concept, abstract or concrete; the moral imbecile, who knows the concrete, but not the abstract, and the type called by French and German authorities the "Debile," who knows both concrete and abstract, but lacks the tone of "ethical feeling." Such a man knows right and wrong, but will not on that account be kept from committing wrong. The term is not far from the commonly accepted meaning of the word "degenerate."

We sometimes use the word "degenerate" as including what the word "crank" was supposed to mean when first introduced during the trial of Guiteau, the assassin of President Garfield. Both words refer to a class of mankind who are on the border-line between sanity and insanity. The word "degenerate" is improperly restricted to those who practise unnatural crimes. It should be broadened to include a type of men abnormal from inheritance in both mind and body. Heredity to-day ignores any definite type of disease. It works alike as similar and dissimilar heredity, passing down abnormal tendencies, but surely and positively some mental abnormality superimposed on physical abnormalities. Mental instability is the invariable condition. Of these unstable or border-land cases more than one type can develop. If the surroundings are criminal they become criminal. They are "suggestible," each and every one. They do not as a rule have strength of mind enough to originate. They readily take up the suggestions of others.

This is the class which Lombroso calls the "criminaloids," of which the tramp is a familiar example. Some tramps are cases of slow and imperfect development who, while of mature years, usually have the mental characteristics of boys that run away from home seeking adventures. They are frequently neurasthenics, restless and unstable. Such periodic vagabondage is occasionally seen in young boys, and is sometimes associated with very marked and causeless depravity. Such children, when suffering from the periodic impulse to run away, will steal money or anything that will please their fancy, will lie and show a complete lack of moral sense. Such a case, quoted by Brower, in the intervals between attacks was docile and well-behaved in every respect. After adolescence he seemed to outgrow the tendency to vagabondage. The recurrence and acuteness of this case emphasizes the relation to insanity, of which it is the criminal equivalent.

Another variety of "criminaloids" are the anarchists, who, as a class, stand near the criminal on one side and the insane on the other. The intellectual side of anarchy, such as it is, lacks logic and reason. The actions of anarchists have the reckless and incoherent element of an insane man's deeds. As individuals they seem to be of two classes—those who show excessive development of certain aggressive traits, and those who are weak and show a lack of self-control to a marked degree. Of the two types, the former are those who "suggest," and who may be men of some intellectual power to influence others. The rest are a flock of rather feeble-minded anarchists, who respond as readily to the suggestions of the master minds as the "subjects" of the professional "mesmerizer" or hypnotist. Mankind as a mass are far more "suggestible" than as individuals, and will do things which as individuals they would never think of doing. In addition to this they are as a rule ignorant of what direct or indirect suggestion really turned their thoughts to one particular line of action.

In conclusion I would recall to your minds the case of E. S., who, as you will remember, was a good boy who became mentally deranged and came back from an insane asylum a full-fledged crook, showing what the writer understands to be the criminal equivalent of insanity.

The history of legal responsibility to the present day was followed, indicating the difference between the legal and medical points of view. That a simple derangement of the human will acts frequently as the only difference between what is normal and what must be classified as criminal or insane, has been indicated. Degeneracy is the broad field out of which all these abnormal types develop, and the mental stigmata of degeneration without doubt furnish the keynote of both criminology and insanity. Suggestion, especially autosuggestion, is the special causal agent, not only of crime, but of many an insane delusion as well.

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APOCYNUM CANNABINUM IN SOME DROPSICAL CONDITIONS.*

BY M. L. HILDRETH, M.D.,
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The great disiderata in dealing with sickness are to first learn what is the matter, and then to find and apply the proper remedy. When the student or young practitioner looks over the vast array of drugs at his command he is delighted in contemplating the bountiful supply, and believes that the only thing necessary is an intelligent selecting of the proper remedy to meet the given case; and the future looks bright and rosy.

As he goes on, making the selections and accumulating experience, he soon begins to realize that "all is not gold that glitters." He learns that either his selections were not properly timed or that the words of the enthusiastic Professor of Therapeutics, who has "almost a specific" for each and every ailment, are as "sounding brass." And the bright halo begins to change to uncertainty, or possibly to gloom. The manufacturing chemist tries to come to his aid and relieve him of the necessity of making the selections. He has only to name the disease and the remedy is forthcoming, and sometimes even the diagnosis is made for him.

At the present time this new factor in the prob-

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lem is assuming wonderful proportions and activity, and the end is not yet. In the mad search for new remedies and combinations, methinks we are sometimes in danger of overlooking and discarding some of the old friends that are worthy of bettter treatment.

In taking up the subject of *Apocynum Cannabinum* I may be accused of thrashing old straw, but an experience of the past two or three years with its use prompts me to hope that some grains may be found worthy of consideration.

In talking with a medical friend, he spoke with some enthusiasm of his experiences with this remedy, and, having at the time some cases of dropsical conditions which had failed to respond to the more modern and up-to-date methods, I essayed to give it a trial. Not, however, with much hope, but because I was at the end of my string, and for want of something better.

Since then, and after using it in a number of instances, I am satisfied that in properly selected cases it has no equal.

In looking over the standard text-books I find that the literature is very meager. The United States Dispensatory disposes of it with a few lines, Ringer and Hare make no mention of it, nor do several of the other standard authors.

In the edema accompanying the varicose condition, and varicose ulcers in elderly persons, I have found it particularly effective, and this is in keeping with the experiences of others who have used it most. This condition we know to be due to a variety of pathological causes: General debility and lack of tone from any cause; age; cardiac insufficiency, either from valve lesions, exhausting diseases, infections, etc., with capillary stasis. In many of these cases it is an efficient auxiliary to the usual means of relief, such as mechanical supports, tonic treatment, etc.

In a case seen recently, that of an old man very much prostrated by influenza, the legs and feet from the knees to the toes were enormously distended, the veins turgid, and the tissues filled with serum. By the use of two-minim doses every three hours the edema disappeared gradually and steadily, being entirely gone in three or four weeks.

In another case of general anasarca following pregnancy and confinement, in which all of the connective tissues were filled with serum (waterlogged), with profound anemia or hydremia, after hydrogogues with tonics had utterly failed to have any effect, and the case seemed desperate, the same doses, with no other treatment, produced a wonderful change in a very short time, and the case went on to complete recovery. Other cases might be cited, but I deem these sufficient.

How it acts is a question. We know that it slows and steadies the action of the heart, lengthening diastole, increases blood-pressure, stimulates the action of the kidneys, probably by dilating their arterioles, and it seems to have a tonic effect on the vasoconstrictor of the general capillary circulation, lessening the tendency to transudation of serum. In the presence of a lack of arterial tone its effects are almost wonderful. In the cases of valve insufficiency, when compensation is failing, with the usual symptoms, the heart is slowed, cough, from bronchial stasis, lessened, cyanosis decreased, and a general amelioration of all symptoms.

Naturally, there would be a limit to its possibilities in extreme cases, but it has given me more satisfaction in the instances in which I have used it than has any other drug. An enthusiastic faith based only on theory, no matter how attractive the theory, and not supported by clinical experience, is often delusive. But a clinical fact is more valuable in practical results than any theory. In a general way it seems to act like digitalis, but with no cumulative tendencies, and no unpleasant effect when given in moderate doses. To quote from a Russian observer (Grozdinsky): "Seven cases of mitral and aortic insufficiency, with disturbed compensation, in which the fluid extract of apocynum, 15 drops three times a day, was used, great improvement noticed in three days. The cardiac impulse grew stronger, the pulse became more regular, fuller and slower, its frequency in some instances decreasing from 130 or 120 to 50 and 48 beats per minute in 48 hours. The blood-pressure rose; cyanosis and pulsation of the cervical vessels vanished; the area of cardiac dulness increased; the daily quantity of urine increased (in one case it rose from 450 to 2,800 c.c.); the body weight fell, the diminution varying from 13 to 21 Russian pounds. No unpleasant accessory effects from the drug noticed."

The preparation which I have used most is Lloyd's tincture in doses of 2 or 3 minims in water every 3 or 4 hours. When given for some time a tolerance may be established, necessitating an increase of dose. In large doses it is said to cause a sense of fulness and pulsation in the cerebral vessels, with copious watery discharge from the bowels and an increased flow of urine. I have had few of the extreme effects, owing probably to the moderate doses which have seemed to be sufficient. I have never used it in the dropsies accompanying acute nephritis, as in scarlet fever, etc. I would hardly expect it to act as in the more passive conditions.

THE ETIOLOGY OF SHOCK.

BY H. H. STONER, M.D.,
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IT is patent to all observers that the phenomena of shock are manifested through the agency of the sympathetic nervous system. It is therefore consistent, if not incumbent upon us, to look to this system of nerves for an explanation of the symptom-complex which accompanies this terrifying attendant upon the surgical state.

As a groundwork for what we shall have to say as to the relation of shock to sympathetic disturbance let us briefly study the relation which this system of nerves bears to the cerebro-spinal system, the processes of metabolism and the

manifestation of the emotions, glance at the symptoms as exhibited in a state of shock, and then ascertain as far as we can to what extent, at least theoretically, the latter is dependent upon the former.

The sympathetic nervous system is composed of neurones closely allied to those of the motor and sensory types of the cerebro-spinal system; in fact, save that the axones of the sympathetic neurones are destitute of a medullary covering, they are identical. Their office is to convey impulses, both motor and sensory; hence this, like the cerebro-spinal system, is made up of motor and sensory neurones. The motor sympathetic tracts have their origin in the cerebral cortex and the spinal cord and are functionally related with the cells of the common and special neurones found in these localities. They are distributed to the involuntary muscles and tissues which preside over the vegetative functions. The sensory sympathetic tracts arise in the tissues which subserve the functions of organic life. Many of them terminate in the spinal ganglia, and it is supposed that many end in the cerebral cortex in direct functional relation with the psychical neurones. Dogiel has recently discovered a neurone located within the body of the spinal ganglia. Its office, as he and many others have interpreted it, is to form a connecting link between the terminal arborizations of a sympathetic neurone and the cell of a peripheral sensory neurone. This neurone—"spinal ganglion cell of the second type," as Dogiel denominates it—arises by a cell whose dendrites are in functional relation with the terminal filaments of a sympathetic neurone and terminates by an arborizing extremity about the cell of a peripheral sensory neurone, thus establishing a pathway of communication for the transmission of impulses from the sympathetic system to the cerebro-spinal system of nerves. Owing to this anatomical arrangement impulses may pass from the bodily tissues over the sensory sympathetic tracts to the spinal ganglia and from thence over Dogiel's neurone to the cell of the peripheral sensory neurones, from whence they may be transmitted directly to the psychical elements of the cerebral cortex. It should also be noted that every sympathetic ganglion which goes to make up the spinal chain has passing into it sensory and motor fibers from the cerebro-spinal system. They accompany the sympathetic neurones in their course and terminate, upon the one hand, in the organs presiding over the vegetative functions, and upon the other, in the psychical precincts. This arrangement provides another path over which stimuli, originating in the bodily tissues, may pass to the psychical elements of the brain, and explains how common sensory impulses, as differentiated from emotional impulses, may reach the brain by a separate route. It should also be understood that reflex centers exist in the sympathetic ganglia, the spinal cord, and very probably if not almost certainly, in the cerebral cortex, by means of which sensory stimuli from the vegetative organs are transmitted to the motor side of the sympathetic system.

Physiologists tell us that the motor sympathetic apparatus is composed of two distinct sets of neurones; namely, accelerator and inhibitory; that stimulation of the former results in an accelerated action, and that of the latter to an inhibited action of the organs to which they are distributed. It is quite doubtful, however, if two functionally separate and distinct sets of sympathetic motor neurones really exist. A more rational view and the one which we shall accept is that one set of neurones serves the double function of acceleration and inhibition, and upon the intensity or quality of the stimulus depends the differentiation of motor activity. It is recognized by all authorities that the mechanism of nutrition is under the control and guidance of the sympathetic system. It is well known that the tissues of the body are constantly undergoing the process of destruction and construction—of waste on the one hand and repair on the other. The sympathetic nervous system is the sentinel which stands guard over this all-important operation and preserves the delicate balance between waste and repair which is so essential to the life of the organism. It may be assumed that in the normal metabolic activities of the tissues the loss by waste is adequately balanced by the process of constructive metamorphosis. It may be further assumed that a stimulus, engendered as the result of a surfeit of nutrient material to a part, is transmitted by way of its sympathetic sensory neurones to their reflex connections with their motor associates, and that these neurones take up the stimulus and transmit it as a motor impulse to its destination in the walls of a blood vessel; the result of which is to constrict its caliber and so to lessen the supply of blood to the part. On the other hand, the stimulus, instigated by an inadequate supply of nutrient material, would naturally be of a different quality. Such a stimulus must necessarily travel over the same route to reach the motor neurones governing the nutrient supply, but it is received by the motor neurones as a strongly contrasted stimulus, and passes out over them as a decidedly different impulse, the effect being to dilate the walls of the blood vessels in which they terminate, thereby permitting an increased supply of nourishment to be poured into the impoverished tissues. Thus this beautiful phenomenon of metabolism goes on, and were it not for the intrusion of outside stimuli the process might continue indefinitely undisturbed. But the relation between the two systems of nerves is such that every common sensory stimulus which finds its way to the psychical domain upsets to a degree, more or less limited, the rhythmical poise of the metabolic process. For as the agitation among the psychical neurones incident to an intense thought or the reception of an intense outside stimulus is disseminated into the areas in which are located the cells of the motor sympathetic neurones, they necessarily become affected and conduct the stimulus to their end arborizations in the tissues, with

the consequence that the normal metabolic balance is deranged. Now this metabolic disturbance necessarily gives rise to a secondary stimulus, which, upon reaching the brain, is translated into an emotional feeling; just as stimulation of the visual centers is translated as the sense of sight or that of the olfactory centers that of smell. These metabolic sensations have a character wholly their own; they are as distinct from other sensations as the visual sense, the olfactory sense, the auditory sense or the sense of taste and touch are distinguishable kinds of sensations.

To the metabolic process, then, we must look for the solution of the phenomena of the emotions, and the thesis here laid down posits that the character of the emotional feelings, whether pleasurable or painful, is conditioned upon the physical state of the metabolic process. That is to say, that when destructive and constructive metamorphosis are perfectly balanced no emotional state exists. But if construction is in excess of destruction pleasurable emotional feelings ensue; or, if the tissues are torn down faster than they are rebuilt, the opposite, or painful emotions arise in consequence. A stimulus, transmitted over the vaso-motor system, of barely sufficient vigor to dilate the walls of the capillaries and permit a superabundance of nutritious material to be deposited among the tissues sets up among these tissues a counter stimulus, which, upon arriving among the psychical elements, is translated as a pleasurable emotion. On the other hand, a stimulus, transmitted over these metabolic nerves of sufficient intensity to contract the caliber of the capillary vessels, closing in a measure the portals through which nutrient substances are imported to the tissues produces a diametrically opposite effect. Under such circumstances the stimulus induced by chemical disintegration of the tissues, upon arriving in the psychical precincts, incites a state of consciousness which we interpret as a painful emotion.

Now that we have considered the relations which exist between the sympathetic nervous system, the process of metabolism and the manifestation of the emotions, let us refer to the symptoms of shock and see if they are not, one and all, explicable by an application of the theory that they are caused by perverted activity of the sympathetic system of nerves.

Shock, as it is usually met, presents itself under one of two clinical forms. First, it may appear attended with great excitement, and second, with utter prostration. In the first form the patient tosses from side to side of his bed and begs to be rescued from some horrible doom which seems to be impending; he complains of a sense of suffocation; his face is flushed and his eyes stare; he calls loudly for water, which is no sooner swallowed than it is vomited. The jactitation gives way to tonic muscular spasm, hiccough and convulsions. Finally, overcome by exhaustion and an awful sense of bodily anguish, the patient dies. In the second form, that of prostration, the sensibilities are stunned into almost complete indifference; the face expresses anxiety; it is pinched and ashy pale; the lips are pallid; the nails are blue, and the skin, especially that of the hands and face, is bathed with large drops of cold, clammy perspiration; the eyes have a meaningless stare and the pupils are dilated. Vomiting occurs quite constantly. The temperature falls decidedly below normal, and the pulse is rapid, weak and thready. Respiration becomes little more than a sigh. The muscular system is relaxed, and the sphyncters are paralyzed. All the functions of organic life are in abeyance and many of them are for the time suspended. Could a more faithful picture of sympathetic disturbance be portrayed? Every symptom is indicative of a profound impression operating upon the system of nerves which preside over the vegetative functions. The emotional feelings, the flush or pallor of the face, the thirst, hiccough, apathy, sweating, vomiting; the disturbance of secretion, respiration, circulation and temperature all point so indubitably to derangement of the sympathetic nervous system that little room for doubt is left open for consideration. It is noteworthy that blows over the sympathetic plexuses or upon organs richly supplied with sympathetic nerves produce a condition of shock identical with that of incised or lacerated injuries. The knock-out blow of the pugilist, or kicks upon the testicles, or pudendi are cases illustrating the point. Operations upon the generative organs, whose functions depend upon the wealth of their sympathetic supply, often produce a condition of shock out of all proportion to the degree of injury produced. This can be accounted for in no other way than by the injury imposed directly upon the sympathetic nerves. All surgeons recognize the fact that abdominal operations are especially productive of shock. This does not occur in consequence of the length of the incision or the degree of injury to the parietes, for the tissues of other parts of the body—the extremities, for instance—withstand similar attacks with apparent impunity. The cause which gives rise to shock following abdominal operations is undoubtedly to be found in the chilling to which the sympathetic nerves of the viscera are subjected. It is well known that refrigeration of the common sensory and motor nerves deranges in a marked degree their functional activities, and one would naturally expect the sympathetic system to respond in a similar manner. The difference, however, is shown in the final effects which such a stimulus evokes. In the case of the common sensory neurones, chilling produces a sensation of cold, while with the sympathetic sensory neurones the metabolic disturbance incident to the lowered temperature culminates in a condition of shock. Hemorrhage is another fruitful cause of shock. Under this circumstance, the stimulus which induces the shock originates directly in the bodily tissues. Owing to the sudden withdrawal of the blood supply retrograde metamorphosis immediately ensues in all parts of the body, and the stimulus—the cry of the starving tissues—incident thereto, suffices

to set up the sympathetic disturbances. Prolonged anesthesia is oftentimes alone sufficient to induce a profound degree of shock. Anesthetics undoubtedly produce their effects upon the cerebro-spinal system of nerves by paralyzing the processes of the individual neurones, so that stimuli are precluded from passing from one to the other to their destination. If such is the case, then, the effect must necessarily be identical upon the sympathetic system. If the sympathetic tracts are incapacitated for the transmission of the stimuli to which they normally respond the process of metabolism must of necessity suffer in consequence, and the result is precisely what occurs when the volume of blood is reduced by hemorrhage.

Why shock should be manifested at one time by great excitement and at another by torpor is explicable upon the assumption that these symptoms are produced by the effects made upon the cerebro-spinal nervous system. In that condition expressed by excitement, the metabolic stimulus is such as to affect the psychical apparatus in a manner capable of producing an emotional state manifested by excitement, jactitation, etc., while in that of torpidity, the metabolic activities are so far retrograded as to nearly destroy the tonicity of the cerebro-spinal system. In the latter case the patient lies in a state of collapse absolutely indifferent to either internal or external impressions.

The theory adduced readily explains the flush or pallor of the face. The blush of shame and the pallor of fear are phenomena of every day observation. These effects are certainly produced through the agency of the sympathetic system, and the same agent that produces the blush of shame is undoubtedly responsible for the flush which attends the state of shock; both are due, no doubt, to an impression acting upon the vaso-motor system which dilates the walls of the capillary blood vessels. The evidence is conclusive that the pallor of shock and the pallor of fear have likewise a common cause, but here the impression made upon the vaso-motor nerves is such as to constrict the capillaries and drive the blood from the surface. Sweating is another symptom which attends some of the emotional states and that of shock. The perspiration attendant upon a confused state of the mind and the perspiration of shock are probably expressions of the same cause. It is quite clear that the sweating of emotion is manifested through the agency of the sympathetic nervous system, and if this be true, the inference is allowable that the same phenomenon as it attends shock has a like origin. The sensation of normal thirst arises in consequence of the abstraction of water from the bodily tissues. This symptom, as it expresses itself in shock, is explicable upon the same premise. If the shock be due to hemorrhage the dehydration of the tissues is direct. If the shock be of traumatic origin, the abstraction of water from the tissues comes about in consequence of the constriction of the capillary blood vessels to an extent sufficient to deprive the tissues of their wonted fluid supply. The fall of temperature occurs as the result of the retrograde metamorphosis. The normal heat of the body arises as the result of the metabolic changes which take place in the tissues. It follows as a necessary corollary that if the process of metabolism is inhibited in shock the temperature should fall in proportion. This is what actually takes place.

It would seem unnecessary to go further into the detail of symptoms. Enough has already been said, we believe, to prove that a direct relation exists between shock and the activities of the sympathetic nervous system. The evidences are conclusive, also, that shock may result either directly from injury to the sympathetic system, or indirectly as a result of disturbed metabolism.

HOW MUCH DO WE POSITIVELY KNOW ABOUT TUBERCULOSIS? A PLEA FOR THE TUBERCULOUS.

BY DR. F. C. McGAHEY,
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THE effort to alarm the public in regard to the infection of tuberculosis has succeeded beyond expectation. The consumptive immigrant finds his entrance to this country barred. A family of a half a dozen children, a healthy father and a consumptive mother—or, perhaps, a consumptive child—think what the ruling of the Treasury may mean in these cases! A consumptive will not come to this country alone; he comes under the protection of his family. And when he is shut out from this country what are the rest going to do? For years it has been the custom to send the tuberculous to high altitudes or the coast. But the people there are alarmed. They do not want the consumptive in their homes, their streets and parks—he is too dangerous. In sanatoriums, too, the consumptive finds himself under the strictest rules in order to guard other inmates against infection. Ah, you poor sufferer, life was hard enough for you before the era of the microscope; now you find it difficult even to secure a place to rest your weary body; welcome is extended hesitatingly to you and you are becoming a social outcast! It is easier to start an alarm than to quiet it. Medical errors die very hard among lay people.

The medical profession is responsible for this alarm, and as the misery called forth by it strikes a large class of sufferers severely, it ought to be sure, very sure that its teaching is beyond error. Hence, how much do we positively know about tuberculosis?

We have agreed to call diseases in which we find the tubercle bacilli, tuberculous. From this agreement we have jumped to the conclusion that the bacilli are the prime cause of the disease, and as tuberculous patients disseminate bacilli, they spread the disease likewise. I concede that diseases, such as small-pox, measles, scarlatina, gonorrhea, syphilis, enteric fever, malaria, etc.,

are primarily caused by their micro-organisms, for the reason that everybody if inoculated is liable to these diseases at least once in his life, regardless of the condition of his health. An individual may be exposed to these diseases several times without contracting them and nevertheless fall a victim to them at some other time. Immunity debarred, this is most likely due to the fact that inoculation did not take place at the first exposures. It may happen that an individual is not at any time in his life susceptible to vaccine, but in many hundred cases of vaccination we have not recorded one such an occurrence, nor do I recollect one such an instance in literature. But tuberculosis occupies a different place.

The following observations will show how much actual danger there may be from infection in tuberculosis: A government boarding school with an enrollment of 80. A boy infected with tuberculosis. Not reported until in the advanced stage when his temperature daily rose to 104 degrees F. He was sent home, where he died about five months later. No precaution had been taken at the school and no other case occurred at that time.

A government boarding school with an enrollment of 180. A girl was kept here until the last stage of consumption. No precaution taken. No other case contracted tuberculosis though she had been a source of infection for many weeks.

A government boarding school with an enrollment of 100. Two boys were brought to the hospital in the last stages of consumption. Not detected by employees before. No other case reported from that school.

These pupils were Indians. The Indian is very susceptible to tuberculosis. The annual death-rate from this disease at schools is about 5 per cent. The children grow up at their homes in an atmosphere filled with tubercle bacili. Most of them manage to live until puberty and some a little longer. The boarding schools seem to be more destructive to them than the bacillus itself. Of the deaths reported from this reservation in the last nine months more than half were school-children dying of tuberculosis; the other were old people with other diseases and a small child, cause unknown.

As to white people, I know of at least three families, numbering about 25 persons, in whom a mother and a grandmother died of undoubted pulmonary tuberculosis after years of illness. None of their relatives contracted the disease and no precautions were taken.

These facts undoubtedly prove that it takes more than an atmosphere loaded with bacilli to produce the disease.

Is a tendency to tuberculosis inherited? The history of the Indians answers "no" and also "yes" to this query. The grandparents of the present generation are usually hale, hardy people with no tendency to the disease; their children have already considerable susceptibility to it, while it is only a small percentage of grandchildren that survive the age of 20 without tuberculosis. Here we have a people, in whom the various changes to which civilization subjects them produces a high susceptibility to the disease.

We know that among whites not all children of tuberculous parents die of the disease, nor do all children of the non-tuberculous escape it. Neither do all persons of a tuberculous type contract the disease, or those of a non-tuberculous type remain free from its ravages. Some people weakened by disease are attacked by it; others, seemingly equally feeble, remain non-infected.

The fact is, we are ignorant as to the cause that makes an individual susceptible to tuberculosis. It seems that our energy could be expended to better purpose in finding the cause than in crying about infection and making still more miserable the life of the person who is under the bane of the disease, often for many years.

People with syphilis and gonorrhea have been treated by us with so much consideration that we have never thought of instructing those around them how dangerous they may be. These diseases are more infectious than tuberculosis as they are contracted by those having no special susceptibility. Nevertheless we have trusted to the patient that he would take the necessary precaution. This same consideration ought surely to have been extended to the innocent sufferer of tuberculosis.

I am not combating the use of any antiseptic measure for the prevention of the disease. I only fear that often our directions accomplish very little or nothing at all. Boiling the sputum for at least 15 minutes—better longer—and burning it up entirely are the only sure ways of destroying the tubercle bacilli. Antiseptics in general do not penetrate the mucus unless a solvent for the mucus is added. Table utensils also ought to be sterilized by boiling. I doubt if we succeed in keeping rooms free from bacilli with all these precautions.

Ordinances against spitting are very good, but far better would be an ordinance which exacts a heavy fine from any woman wearing on the street a skirt not at least two inches from the ground. That would be a protection against other infections as well. Then for the sake of general antisepsis let us make a raid against public practices which are sadly out of place in this era of cleanliness. Separate cars for consumptives may be desirable, but still more desirable are leather coverings for seats instead of plush which absorbs all and keeps all, and linoleum for covering the entire floor. Then the car could be cleansed with an antiseptic solution after each trip. This would result in some protection against tuberculosis and against other diseases at the same time. Let us teach that plush and carpets ought to have no place in any public building, whether church or theater. Let us also demand that those whom we think susceptible to tuberculosis shun all crowded, ill-ventilated, soft-cushioned and carpeted places.

A great many antiseptic measures are much needed in our public schools and these are also

the places where practical instruction in antiseptics ought to be given.

Whatever good our labors in preventing infection may do, an equal if not greater amount of good could be done in tuberculosis by discoveries that would enable the profession to diagnose the "susceptibility" to this disease with unerring certainty.

AN INSTANCE OF ACCIDENTAL VACCINATION.

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It has been observed that typical vaccinia pocks may appear in individuals at a point remote from the site of the original inoculation. Such are cases of true autovaccination, the virus being conveyed by finger-nails which had come in contact with the serum from a ruptured vesicle and then introduced the material at some other point during the act of scratching. This condition is most often seen in small children, presenting a facial eczema or an intertrigo of the groin. The accidental transmission of vaccinia from one individual to another is less often seen, and the comparative rarity of this condition may lend some interest to the report of the following case: A mother brought her child to the dispensary, stating that she herself had been vaccinated some four weeks previously. The pock ran an apparently normal course, and was not protected by any form of dressing. Her little girl of fifteen months slept in the same bed with her. About two weeks ago she noticed a small red spot on the baby's cheek which has gradually assumed its present proportions. Examination of the strong, healthy child showed a typical vaccinia pock, corresponding to about the tenth day, on the middle of the right cheek, with some surrounding induration and a slight edema of the lower lid. There appeared to be a slight infection, and the neighboring lymphatic glands were somewhat enlarged and tender. At the time of examination no signs of any skin-eruption were present, and the child undoubtedly inoculated itself through the healthy skin, probably by scratching. The vaccinia ran a normal course, but a rather unsightly scar on the cheek will remain as a result of the child's efforts.

MEDICAL PROGRESS.

MEDICINE.

Hepatic Cirrhosis.—An analysis with the object of determining how far the most marked symptoms which have been attributed to hepatic cirrhosis were due to the anatomical condition of the liver per se, and how far they are dependent on associated changes in other organs, has been made by G. G. Sears and F. T. Lord (Bost. Med. and Surg. Jour., September 11, 1902). An attempt was also made to determine in what class of cases surgical interference, whose only object is to overcome the portal obstruction, was most likely to prove successful. For this purpose they studied 78 cases in which the proper histological diagnosis had been made after autopsy. Their conclusions are as follows: Hepatic cirrhosis is, in a majority of instances, but one expression of the effect of a systemic poisoning. The degenerative changes in other organs are to be regarded as part of this general process, rather than as complications. Dilatation of the vessels may have some effect as a compensatory mechanism, but is rarely adequate to prevent ascites. Persistent jaundice and hemorrhage from the digestive tract seldom occur until the connective tissue formation is well advanced. Hemorrhage is usually due to some gross lesion, in most cases an esophageal varix. Ascites occurs as a late symptom in all classes of cases, but its early appearance is usually associated with some form of peritoneal inflammation. Continuous fever was never found, except in the presence of complications. No evidence was found to show that the course of the disease was not always progressive, but a high grade of cirrhosis was often reached without incapacitating the patients. Surgical treatment may be indicated in a very small proportion of cases, but conclusive evidence is still lacking to show that the ascites in the cases successfully operated upon was due to hepatic cirrhosis and not to coincident conditions.

Turpentine and Perityphlitis.—During the course of his research as to the use of pyogenic medicines, M. Mayer of Simmeru (Sem. méd., No. 34, 1902) was led to experiment as to whether or not the external application of the substance, and in particular of the essence of turpentine, might not influence favorably suppurative processes. One investigation in this field, in a case of purulent pleurisy, was crowned with great success, and then on several occasions the author used the essence of turpentine as a resorbent and antiphlogistic. It is, however, in perityphlitis, before the stage of exudation, that the medicine in question appears to give most excellent results. This author has used it in 12 such cases. He prescribes it, either in the form of the essence, or of the essential oil, in a dose of three drops, repeated two to four times a day. The medicine may be given in ether, or incorporated in the yolk of an egg; or better, since the stomach does not bear it well, as an emulsion in the yolk of an egg. If there is an exudate around the appendix, he finds it well to combine internal and external exhibition of turpentine. The internal use of this remedy must be stopped if any trouble appears with the kidneys or lungs. This author found, in one man who had signs of tuberculous disease, a frothy and bloody expectoration appearing after the use of turpentine for some time.

Guaiacol and Mumps.—The good effect which applications of guaiacol give in the treatment of inflammations like orchitis induced E. Grande of Micrastro (Sem. méd., No. 34, 1902) to test it for antiphlogistic and antiseptic purposes in epidemic parotiditis. He uses it as an ointment, containing five per cent. of the drug, and applies it once or several times a day over the whole region of the affected gland, which he covers with some form of cotton dressing. His series has reached 12 cases, and his results indicate that the swelling decreases at the second or third treatment, the pain and discomfort in chewing and swallowing likewise ameliorating. Unlike the scrotum, the face does not seem to suffer from the drug. He has not seen such secondary results as eczema. He attributes these good results not only to the analgesic action of guaiacol, but also the antiseptic influence of it, exercised perhaps quite directly within the mouth by absorption from the face.

Genesis of Pulmonary Tuberculosis.—G. Schmorl (Münch. med. Woch., August 19, 1902) directly opposes the view of Ribbert that apex infection is hematogenous and not aerogenous in origin; nor does he agree with him in his views concerning miliary tuberculosis. No-

body who has performed autopsies on cases of acute miliary tuberculosis will fail to notice the presence of large caseous foci in the larger veins, arteries or lymphatics. If the capsule of these be pierced by means of a pin, the liquid contents will readily exude, showing that it is under pressure; and if mixed with water they will yield a uniform suspension, each drop of which will teem with bacilli, either singly or in groups. It is clear that perforation of one of these foci into the blood-stream will mean a terrible catastrophe for the organism. The hematogenous origin of apex tuberculosis presupposes an absorption of the bacilli by means of the lymphatics, and their return to the apex through the blood, but it is hard to see why they cannot develop at the original site without going through this route, and then, in cases where the infection was unquestionably through the circulation, the apices were more often found free than involved. A careful microscopical examination will often show that the starting-point is the bronchial mucous membrane, and this also favors the aerogenous theory.

Hetol in Tuberculosis.—Only favorable results have been seen after the use of hetol in tuberculosis by D. Katzenstein (Münch. med. Woch., August 19, 1902), provided it is employed in early cases and the ordinary hygienic measures can be resorted to as well. There is a rapid improvement in the subjective symptoms, a disappearance of fever and night-sweats, a diminution of cough and expectoration and an increase in weight. Hemoptyses never interfered with the treatment. The injections are best made into the middle third of the triceps, 20 c.c. of a sterile solution being used at a time. The number of injections varied from 20 to 72, and the time of treatment from two to six months. The patients can easily call on the physician in his office.

Subcutaneous Injections of Arsenic in Phthisis.—From an observation of 10 cases, H. Cybulski (Münch. med. Woch., August 19, 1902) concludes that arsenious acid temporarily reduces the temperature in phthisis. It also increases the body-weight and stimulates the appetite, though not to the same degree as when taken per os. Diarrheas, albuminuria and direct action on the heart could not be noticed, and though the subjective symptoms abated considerably, no appreciable cessation of the process in the lungs could be found by examination. The mixture employed was a solution of sodium arseniate, two decigrams in 20 grams of one-half per cent. solution of carbolic acid, of which first 0.1 c.c. is injected, and the dose gradually increased until a Pravaz syringeful is used. If the solutions are employed warm, pain is not noticed.

Persistent Hiccough.—The essential feature of hiccough is sudden involuntary contraction of the diaphragm, and simultaneously with this occurs a closure of the glottis. As to predisposing causes, W. McDonald (Albany Med. Ann., September, 1902) says that any case in which there is increased nervous irritability might be easily complicated by more or less persistent hiccough, and that any local disorder which might extend or become contiguous to any portion of the phrenic or its centers, or which might be immediately related to afferent nerves, such as the gastric branches of the vagus, may be said to offer special liability, while abnormal conditions in certain distant parts may constitute a predisposition by way of reflex action. Of general conditions, hysteria and neurasthenia are most common; of local, preexisting inflammation of the pleura or peritoneum, and of the reflex, diseases of the organs of generation and digestion. Alcoholic debauches frequently are followed by attacks of hiccough. The characteristics of individual attacks are extremely variable, and in some are so prolonged as to cause considerable exhaustion, and the prognosis depends, of course, upon the exciting cause. If there is anything humorous in the consideration of the subject it is to be found in glancing over the list of remedies which are supposed to have special efficacy, where nearly every drug is mentioned. Rational treatment, however, is directed at the cause. If this cannot be discovered, means are to be resorted to having an improving effect upon the whole economy, such as mental and physical rest, massage, electricity and general hygienic measures.

Relation between Exercise, Fever and Albumosuria in Phthisis.—A rise in temperature after exercise has been regarded by some as pathognomonic for tuberculosis, but G. Schroder and T. Bruhl (Münch. med. Woch., August 19 and 26, 1902) show that this may also occur in the healthy, even to a more marked degree, but that here the temperature reaches the normal more rapidly. It was interesting to determine whether this rise is to be regarded as a real fever, and to this end the urine was tested for albumose, but found absent in all except advanced cases with cavities where the diazo reaction also occurred. It is probable that the increased temperature is simply a local hyperthermia induced by the increased work of the muscles of the lower extremity. It is not seen in oral measurements, hence these are preferred as being more trustworthy.

Diagnosis of Tuberculous Predisposition.—By means of a special apparatus, the thoracodynamometer, G. Sticker (Münch. med. Woch., August 19, 1902) is able to measure the strength and endurance of the muscles of inspiration, and thus to judge of the tendency of the lungs to become tuberculous. The strength of inspiration in healthy persons from nineteen to twenty-five years, was found to correspond to 32-46 kilograms for a maximum trial, and 30-44 for an endurance trial. In a number of suspicious individuals, sent to the clinic chiefly for anemia and without any direct evidences of tuberculosis, the figures 22-33 and 18-26, respectively, were obtained, and a number with distinct tuberculous lesion gave as values 19-31 and 17-24 kilograms.

Changes in the Spinal Cord in Anemia.—From a study of this subject the following conclusions are drawn by F. Billings (Bost. Med. and Surg. Jour., September 4, 1902). There is a well-established relation of diffuse cord-degeneration with pernicious anemia. It seems highly probable that the hemolysis and the cord-changes are due to the same toxin. While the source of the latter is unknown, the fact that gastro-intestinal disturbance is so common in the disease would lead one to suppose that it is of intestinal origin. The diffuse degenerations of the spinal cord which occur in conditions without pernicious anemia do not appear to differ essentially from those of pernicious anemia. It is possible that a common blood-circulating poison exists which may extend its force upon the blood in one individual, upon the nervous apparatus in another, and coincidently upon the blood and spinal cord in others.

Chronic Glossitis.—The treatment of chronic glossitis by the application of nitrate of silver or chromic acid associated with electricity is comparatively a new method. M. L. Ravitch (Sem. méd., No. 25, 1902) has successfully treated the various forms of chronic glossitis by this procedure. He has applied it to neucoplakia, dissecting glossitis and other well-known forms, which always resist the usual forms of treatment. This author cauterizes the tongue with nitrate of silver or chromic acid, and adds the action of a galvanic current. The following is the manner of procedure adopted by him: He begins by bathing or washing the tongue with either a 15 per cent. solution of nitrate of silver or a five per cent. solution of chromic acid. Then the patient

holds in one hand the positive electrode, while the physician passes the negative electrode over the parts which have been cauterized. The duration of the electrical application is 10 to 15 minutes. It produces an abundant flow of saliva, which may be received with convenience upon a large wad of absorbent cotton held at the mouth. Under the influence of this treatment he has found that the pains become less, and as a rule the tongue slowly returns to its normal condition. The number of treatments necessary to reach a cure ranges between 20 and 30 even when the attack is severe.

Tuberculous Meningitis.—When tuberculosis affects the meninges the patient is in a serious condition. R. TRIBIER (Sem. méd., No. 30, 1902) has been using in the prodromal period of this disease repeated vesication of the scalp. This method is not new, but has for many years been looked upon with disfavor. This author, however, regards it as capable of causing a cure, provided it is used before there is the least symptom of contracture or of weakness of the muscles. He begins by shaving the scalp and then applies a vestigating, dry dressing. One of the former reasons for rejecting this method of treatment was the fear of causing suffering to the patient. According to the experience of this author, such applications are hardly painful. Albumin in the urine, far from constituting a contra-indication, is apt to disappear after its use, along with other symptoms of the disease. He has now employed this treatment with 12 patients whose ages ranged between two and eighteen years, and in whom the possibility of hysteria was ruled out. Certainly the prodromal stage of a tuberculous meningitis is a very uncertain matter, and must at best be based upon mere probability. In one of his patients the same symptoms, appearing a year later, were not treated by this method, and death supervened in a short time. At the autopsy the diagnosis was proved.

Beer-Yeast and Pulmonary Disease.—The treatment of certain affections of the lungs in old age by means of beer-yeast was discovered about two years ago by P. Marie, who noticed rapid cure of a grave pneumonia under the influence of this organism, which had been prescribed against a furunculosis which accompanied the pneumonia. The result induced him to treat with it all cases of pulmonary inflammation. Other contributors to this matter are J. LARDIER and TOUBET (Sem. méd., No. 30, 1902). These observers have found that beer-yeast is also a valuable means of treatment in both acute and chronic bronchitis in the aged. It is true that in acute bronchitis, the substance in question, employed to the exclusion of all other medicines, would remain without effect upon the progress of the disease during the period of activity. When, however, the disease has begun to recede, and the patient to expectorate, the influence of the yeast begins to be apparent. For this purpose the dry yeast is used in a dose of two or three teaspoonfuls a day and, as a rule, causes a distinct decrease in the amount of expectoration within two or three days, and a cure within two or three weeks. In cases of bronchial catarrh of long standing the use of beer-yeast brings about a rapid decrease in the amount of bronchial secretion, and then a complete cure in two or three weeks. In order to be sure of the result it is wise to continue the medicine for another week after the symptoms have ceased. They also recommend that old persons predisposed to affections of the bronchi should take beer-yeast for a month or so at the beginning of winter, as a means of preventing trouble with the lungs. These authors have also used beer-yeast in treating pneumonia. Like Marie, they have found it very efficacious, not from the beginning to the end, but rather at the time of defervescence. At this period of the disease it seems to have the effect of preventing the chronic condition of the lungs which so commonly occurs in the aged. The yeast is administered either dried, mixed with sugar and water, or with sugar and milk, or in the form of pills when the taste of it is disagreeable to the patient. The drug exercises not only a medicinal but also a tonic effect.

Semeiological Value of Hematuria.—The interpretation of hematuria and its significance in the determination of disease of the urinary system is the subject of a paper by E. MINGUEZ (Rev. Med. Cir. Prac., August 14, 1902). He finds that hematuria, occurring without pain, polyuria, dysuria, or other accompanying symptoms, may be regarded as pathognomonic of neoplasm; especially if, after a variable period of time, such hemorrhage recur as an isolated symptom. But little aid in diagnosis is obtainable from the color of the urine in hematuria, as it depends solely upon the quantity of blood present; but if such a specimen be allowed to stand till its abnormal elements have settled to the bottom valuable information may be obtained from examination of the sediment. This may be purulent, blood-streaked, or may contain characteristic blood-casts of the ureter or renal tubules. If hematuria be accompanied by pain in the region of ureter or kidney, and followed by elimination of clear urine, one of these organs may be considered as the site of hemorrhage; pain being attributable to increased renal tension, and subsequent clear urine to temporary obstruction of the affected organ, allowing passage of urine solely from the healthy side. If the blood be passed in the first part of micturition its source is probably the prostate or urethra; if in the last part, the bladder. If the blood be evenly mixed in the specimen diagnosis of its source is more difficult, though bloody molds of the ureter or renal tubules may indicate the bleeding-point. As to the cause of the hemorrhage, a neoplasm or prostatitis may give rise to bleeding from the prostate, rectal examination determining the influence of this organ in the production of hematuria. Hemorrhage of the bladder may occur from inflammation, retention, tumor, or calculus. If, after perfect repose, blood disappear from the urine, and if motion cause reappearance or increase of hemorrhage, the passage of blood may be considered as due to traumatism of the bladder-wall from calculus. If hemorrhage occur as an isolated symptom, and be not influenced by rest or motion, it is attributable to neoplasm. Cystitis, which gives rise to hemorrhage, is blennorrhagic or tuberculous. An acute course, pain and pyuria are diagnostic points in the former condition; less abundant flow of blood, decreasing in amount as the disease advances, and a subacute course characterize the latter. Renal hemorrhage is ascribed to tumors, tuberculosis, nephritis, hemophilia, paludism and calculus. The diagnosis of such hemorrhage presents many difficulties, and general indications must be taken into consideration. The influence of rest and motion will assist the diagnosis of calculus as a factor in the production of renal hemorrhage. This etiological and diagnostic review is given by the author apropos of a vesical papilloma whose clinical course illustrates the diagnostic points presented by him.

Relation of Malaria to Zoster.—After making careful investigations upon about 40 cases of zoster, I. MACF. WINFIELD (N. Y. Med. Jour., August 2, 1902) has ascertained that the plasmodium malaria may be found in the blood of about one-half those cases. Very few gave typical histories of malaria, but the symptoms in most instances pointed to an irregular fever of low grade, causing considerable annoyance and prostration. We do know that a zoster-like eruption often accom-

panies lesions of the nerves or the root ganglia, and that poisoning from coal-gas, arsenic and the like may be followed by zosteroid eruptions. Although, of course, it has not yet been proven, the author suggests that the malarial parasite may cause an inflammation of the nerve ganglia resulting in the zosteroid manifestations.

Clinical Cases of Gas-Poisoning.—Since attention has been called to the enormous leakage of gas in our city, and the disastrous results which may follow constant exposure even to small amounts of carbon monoxid, several cases of an indefinite nature, yet presumably due to water-gas, have been reported. S. LLOYD (N. Y. Med. Jour., August 23, 1902) has observed two series of cases which developed in houses where there was subsequently found to be a marked leakage of gas. The patients complained of headache, malaria, an afternoon temperature sometimes running up to 102° F., and presented an anemic condition, which did not respond to ordinary methods of treatment until a change of residence was made. The cases seem to resemble irregular forms of typhoid or malaria, but the blood shows only a simple anemia. No doubt many of the unexplainable instances of chronic anemia with which the physician is called upon to deal are due to this cause.

Ankylostomiasis in Cuba.—An instructive case is reported by J. GUITERAS (Rev. Méd. trop., vol. III, No. 7, 1902). The following is its clinical résumé: Temperature 38° to 39° C.; pulse 159; great prostration; vomiting; rectal incontinence; feces reddish-yellow, liquid; abdomen enlarged; liver and spleen increased in size; slight general anasarca; skin had the pale yellowish color characteristic of pernicious anemia, and the whole clinical picture suggested that condition. A diagnosis of malarial cachexia had been made by the attending physician. In the search for the cause of the condition the author made an examination of the feces, and in one microscopical preparation alone, found 184 eggs of the ankylostomum. Thymol was given in large doses, 2.50 grams in one day causing expulsion of 104 of the parasites. After 12 days' interval, three grams were administered; this being followed by expulsion of 36 worms. The same dose repeated twice at intervals of 12 days resulted in dejecta containing 60 and 64 parasites. The patient was fully restored to health within four months. The following suggestions for the management of such cases are made by the author: The patient should remain in bed during treatment upon a milk diet, and no alcoholic beverages should be allowed. A purgative is to be given before and after administration of thymol.

Mode of Transmission of Ankylostoma.—The theory advanced by Dr. Loos, that ankylostoma might pass through the skin and eventually reach the intestines, has been somewhat shaken, if not in part disproved, by the work of G. PIERI (Arch. Biol. Ital., vol. XXXVII, fasc. II, 1902). A few drops of a culture containing numerous larvæ of ankylostoma were placed upon his hand, and a like quantity brought in contact with the skin of two of his coworkers. Microscopical examination after the culture had dried upon the skin demonstrated that the larvæ had undoubtedly penetrated the cutaneous tissue, as there was no visible evidence of their presence upon its surface. In two of the subjects experimented upon irritation of the skin developed, as evidenced by swelling, pain, burning, etc. This lasted for several weeks. Daily examination of the feces revealed entire absence of the larvæ of ankylostoma, save in PIERI, who after a month discovered a few eggs in his own feces. This infection, however, he attributes to accidental ingestion of the parasites while handling the material, basing this supposition upon the fact that the other subjects of experiment were not infected. In a communication to the author Loos states his belief that after a further lapse of time the parasites will undoubtedly be found in the feces of all three subjects. Further experiments are to be carried on by Pieri to determine the ultimate fate of such larvæ after penetration of the skin.

The Value of Cytodiagnosis.—From a study of 43 pleuritic and peritoneal effusions C. TARCHETTI and A. ROSSI (Gazz. Osped., September 7, 1902) draw the following conclusions: (1) The epithelial cell, from the epithelial layer investing the serous membrane, is the predominant element in transudates, but numerous small monouclear cells are frequently seen, which differ in certain respects from true lymphocytes, and which may be regarded as modified epithelial cells; (2) in pleuritic exudates accompanying acute pulmonic inflammations polynuclear leucocytes prevail; (3) in the so-called primary pleuritis, lymphocytes predominate, but there is sometimes preponderance of polynuclear elements or epithelial cells; (4) the lymphocytes which are found in primary pleuritis do not represent a regressive form of serous epithelial cell, but are to be considered, at least for the most part, as true lymphocytes; (5) there are effusions showing predominance of lymphocytes, in which neither clinical nor bacteriological examination reveals tuberculous infection, while there are, on the other hand, effusions known to be tuberculous which contain excess both of polynuclear leucocytes and lymphocytes. The deduction is drawn that cystodiagnosis is of very limited value, and reliance upon that alone, in suspected tuberculosis, leads to error.

The Role of Animal Parasites in the Etiology of Appendicitis.—In the course of his extensive anatomical studies of the topography and pathological anatomy of the appendix, Dr. ROSTOVTZEFF (Bolnit. Gaz. Bot., No. 28, 1902) came to the conclusion, that Metchnikoff's opinion on the causative influence of worms on appendicitis can hardly be accepted. On the one hand, he found the parasites in a comparatively small percentage of the examined appendices, and on the other, of those appendices where he found the parasites a great many were perfectly normal.

A New Symptom in Tetany.—Dr. SSOLOVIEFF (Russky Vratch, No. 20, 1902) describes a very interesting phenomenon noticed by him in two cases of tetany. With every systolic contraction of the heart he noticed a rapid drawing in of the left side of the abdominal wall and of the left intercostal spaces, and a convulsive use of the lower ribs. This phenomenon was not simultaneous with the contraction of the heart, but closely followed it. Examined with X-rays the patient showed contractive movements of the left half of the diaphragm synchronous with the pulse. Dr. Ssolovieff explains this symptom, which he is the first to notice, in the following way: The heart on the aorta with every systolic contraction touches the left phrenic nerve, and as in tetany every nerve-muscular apparatus is oversensitive, this touch is sufficient to stimulate the motory fibers of the left phrenic nerve and consequently produce a contraction of the left half of the diaphragm. He therefore proposes to call this new symptom of tetany the phrenicus-phenomenon.

Estivo-autumnal Malaria Endemic in Manhattan.—Only during the last two or three years has there be postive proof that estivo-autumnal malaria sometimes developes in this immediate vicinity. It is still held by many that these cases are all imported from the South, but recently such cases have been reported by several hospitals of this city, and H. S. PATTERSON (Med. Rec., September 6, 1902), after following up the histories of several patients, has conclusively proven that they must have been infected within a few miles of New York. The soldiers of the Spanish War brought back a goodly

supply of those organisms, and there now can be no doubt that they have been communicated to others.

Inflammation of the Diaphragm.—It is generally understood that a case of pneumonia is almost always accompanied by a fibrinous pleurisy and therefore when the lower lobe of the lung is involved a diaphragmatic pleurisy usually follows. C. W. G. ROHRER (Md. Med. Jour., September, 1902) has examined a number of cases microscopically and finds that a diaphragmitis is furthermore a very frequent condition, and is responsible for many of the peculiar acute symptoms of pain. The intermuscular tissues are thickened, infiltrated with pus-cells, and contain an increased number of connective-tissue nuclei. The muscle fibers are swollen, have lost their striations, and undergo hyalin degeneration. The infection of the diaphragm may result from direct extension, by the lymphatics or by the vascular system. There is a well-defined symptom-complex, due to acute diaphragmitis complicating pneumonia. There is an acute pain in the region of the diaphragm, perhaps constrictive in character, intensified on deep inspiration and on coughing. Respirations are hurried, shallow and thoracic in character. Pain may be elicited by pressure over the epigastrium and the pain is sometimes referred to the abdomen, especially in cases of small children.

Environment as a Cause of Ague.—The proceedings of the Malarial Congress recently held at Nagpur, Central India, were full of interest. One of the most important topics discussed was the occurrence of fever identical with malarial fever, in which parasites cannot be found in the blood. After repeated searches by experts, and before quinine had been given, instances of failure to find the parasite in undoubted cases of malarial fever were narrated, every speaker at the congress affirming the malarial nature of cases of chronic fever with a large spleen. From this it appears that at the present time the term "malarial fever" includes two clinically identical but etiologically distinct fevers, which may be called respectively parasitic and non-parasitic fever. M. D. O'CONNELL (Lancet, September 6, 1902) discusses environment as a cause of ague, especially of this non-parasitic ague. By environment he means the hot, moist, stagnant atmosphere in which these cases of fever become most prevalent and for many years was considered a sufficient explanation of their cause. As regards this environment, it is obvious that it may be of a higher degree of intensity in some places than in others, in some years than in others, in some seasons than in others, and in some individuals than in others. It is perhaps possible to demonstrate that the invariable effect of exposure to such environment is to produce an intermittent excess of water in the blood. This intermittent excess of water in the blood may be seen to effect a clear explanation of the intermittent fever, anemia and melanemia, enlargement of the spleen and other characteristic malarial symptoms. The table which he published aiming to establish this theory is extensive and exceedingly instructive, but the following summary gives a suitable review of what this author considers the important elements in the case: (1) Cases of fever, clinically identical with malaria occur, in the blood of which parasites could not be found after repeated search before quinine had been given; (2) the meteorological environment found where such cases occur, and indeed in all malarial climates, increases the amount of water in the blood of those exposed to its influence by impeding elimination through the skin and lungs (evaporation-heat loss) and through the kidneys; (3) there is known to be increase of water in the blood of those suffering from ague (Liebermeister); (4) increase of water in the blood increases metabolism, *i. e.*, heat-production, and produces a rise of body-temperature (Payne); (5) as environment thus causes diminished heat losses from the body and increases heat-production within the body, it is plain that it causes pyrexia; (6) this pyrexia must be of intermittent variety, as the environment which produces it is of intermittent intensity, *i. e.*, undergoes diurnal variation; (7) elimination of water from the blood (sweat) in ague reduces the temperature to normal; (8) increase of water in the blood produces poikilocytosis, pseudoparasites, liberation of hemoglobin, destruction of red blood-corpuscles, and melanemia; (9) an extreme degree of these changes obviously leads to hemaglobinuria; (10) increase of water in the blood produces enlargement of the spleen; (11) removal from the environment that produces increase of water in the blood usually cures ague; (12) all treatment of ague which is efficacious reduces the amount of water in the blood. From these facts he thinks it is not unreasonable to conclude that those cases of ague or intermittent fever in which no parasites can be found are demonstrably due to the environment under which they arise. If this view is correct it is only one more illustration of the truth of the old saying that pathology in many instances seems to be but physiology in distress.

Results of Antityphoid Inoculation.—The signal victories gained in the fields of curative and preventive measures against diphtheria by the use of antidiphtheritic serum at once increased the interest in the antityphoid serum when announcement was made that it had been successfully produced. Among British observers and experimentors probably A. E. WRIGHT has been more active than any other. In an article (Lancet, September 6, 1902) on "The Results which have been Obtained by Antityphoid Inoculation" he gives the following summary as a digest of a minutely careful and scientific table, which will repay critical survey by anyone. As to the general results of the statistics, he says it would be illegitimate to express them in the form of an arithmetical expression representing as the case might be, the average diminution of the incidence and the average diminution of the death-rate from typhoid fever in the uninoculated. It would be illegitimate to do so, because the degree of exposure to infection and the proportion of inoculated to uninoculated are in each case different. Speaking of incidence, he says a study of the statistical materials at his disposal will, however, show that in every case except that of the City Imperial Volunteers (where the statistical materials consist only in the bald figures incorporated in the table) and in the case of the Staffs of the Portland Hospital and Imperial Yoemanry Branch Hospital at Pretoria, there was at least a two-fold reduction in cases of typhoid fever in the inoculated. In certain cases a greater reduction in the incidence of typhoid fever was achieved—a reduction varying from six-fold to twenty-eight-fold. The author claims, speaking of case mortality, that there is, superadded to the diminished incidence of the disease, a striking diminution of case mortality, as is attested by the extensive statistic material collected by Dr. R. W. Dodgson, and more particularly by the accurate and extensive figures furnished by Major C. Birt, R.A.M.C., personally, and by the Staffs of the Civil Hospitals in South Africa. It may be taken that in the aggregate the proportion of deaths to cases among the inoculated is approximately half that among the uninoculated. Wright further claims that the combined effect of the diminished incidence and diminished case-mortality manifests itself in the diminished death-rate from typhoid fever among the inoculated. The minimum reduction of death-rate chronicled in the table is the two-fold diminution in the case of the City Imperial Volunteers. As will be seen, the reduction of death-rate in case of the inoculated has often exceeded, and has seldom fallen below, a four-fold reduction. In bringing this summary to a close he emphasizes a point already

elucidated in his previous papers, that there is in connection with all protective inoculation a risk to be considered. There is a risk that in a case where the patient's resistance is naturally low, or has been reduced, as is often the case, by a previous attack of typhoid fever; in a case where the patient is inoculated with a full dose of vaccine in actually infected surroundings, and in a case where the patient is inoculated with an excessive dose or is reinoculated too soon, the system may be left more open to infection at a period when it needs protection. It must be the task of the future to try to diminish the risk, on he one hand, by working out an adequate method of standardization of the vaccine, and, on the other hand, by combining with the study of the change produced in the blood by antityphoid inoculation the study of the blood in typhoid convalescents and the study of the gradual success or failure of the process of immunization in the actual typhoid attack. It is not necessary to insist on the urgency of this task.

OBSTETRICS AND GYNECOLOGY.

Vicarious Menstruation.—An exceedingly rare example of this condition is reported by J. H. CLAIBORNE (Jour. Am. Med. Assoc., September 13, 1902). A girl of sixteen, otherwise normal, presented, two or three days before her regular periods, a red spot under each eye. The skin became red, and the blood oozed through and formed a crust, which disappeared with the period. The bichloride of mercury with compound tincture of gentian was given. Her general health improved, but the other phenomenon was in no wise influenced.

Placenta Prævia.—In reviewing the cases at the Sloane Maternity Hospital it was found by F. A. DORMAN (Med Rec., August 30, 1902) that placenta prævia occurred in one out of 133⅓ cases. This simply shows the high percentage of operative cases in hospital practice, for the usual proportion is one in about 1,000. Any condition which tends to interfere with the fixation of the ovum as it comes from the Fallopian tube serves as a causative factor. In this series the ratio of multiparity to primiparity was eight to one. The diagnosis must be made upon the history of the case and vaginal examination. A history of bleeding during the latter months of pregnancy always demands an examination, for a second warning may not be given, and a profuse bleeding causes rapid death unless help is at hand. These statistics show a mortality of about 12 per cent., but it usually ranges between 20 and 25 per cent. On account of the operative interference which is usually necessary in the interests of the mother, the fetal mortality ranges between 50 and 60 per cent. Expectant treatment is permissible only before the seventh month, in order that the time of complete viability may be reached. Fatal cases before that time are seldom heard of. The induction of labor may be by a vaginal tampon or by a bougie, but the best method is by the Champetier de Ribes bag as modified by Voorhees. With this in the cervix we have a good uterine stimulant and a perfect tampon. One rule laid down as invariable is that the patient should never be left alone till she is delivered, and pregnancy should never be allowed to advance beyond the seventh month. If the bags are not obtainable the cervix must be rapidly dilated and a podalic version done, so that a leg may be brought down to act as a tampon and stop the hemorrhage. An external version is frequently possible in these cases, because the head remains high up above the pelvic brim. After bringing down a leg the completion of the dilatation may be left to nature. The first consideration is to control hemorrhage, and the second is to combat shock, which is so often present. Intravenous injections of salt solution are very beneficial. A comparatively frequent complication is rupture of the uterus on account of the force sometimes used in extraction and on account of the vascularity of the cervix. As the chances of the child are bad anyway, too great risk should never be taken with the mother in rapid extraction. A suggestion is made that Cesarean section might be justifiable if the mother is in good condition, the cervix hard and undilatable, and the surroundings favorable for a laparotomy.

A New Speculum.—Fergusson's cylindrical speculum has filled a wide field of usefulness in gynecology, for purposes too well known to need repetition. Notwithstanding its general applicability, however, the instrument has limitations which everyone who has used it extensively will appreciate. They are due chiefly to great length and uniformity of diameter, which, even in large women, cannot possibly exceed rather narrow limits, excepting at the vulva. In order to overcome these difficulties, A. THEILHABER of Munich (C'blatt Gyn., No. 34, 1902) has devised an instrument with the following features: Instead of a cylindrical tube, a truncated cone, whose base corresponds to the vulva when the instrument is inserted. The plane of the other surface is oblique, so that the element of the cone which corresponds to the front wall of the vagina is 10 c.c. long, and the opposite element, lying along the posterior wall, is 12 c.c. long. The base of the cone is 10 to 12 mm. larger than the inner end of the instrument. Thus it will be seen that a speculum is provided which possesses all the advantages of the old-style Fergusson, with the added advantage of giving space at the vulva for the free application of the volcella forceps, uterine sound, applicators, etc. After some experience, he has found that there are hardly any women who will not, without discomfort, bear the incision of this speculum as well as they do that of the old speculum.

Lactation Atrophy of the Uterus.—Imperfect involution stands next in importance to gonorrheal infection as a causative factor of pelvic disease in married women, writes H. N. VINEBERG (Am. Gyn., August, 1902). It is insidious and two years or more may elapse before manifest symptoms arise. The author believes that the uterus of a nursing woman always normally undergoes atrophy till it has reached a size below that of the non-parous organ, and he finds that if the mother does not nurse her child this "hyperinvolution" does not take place unless assisted. It is his custom to keep his patient under observation for eight or ten weeks after parturition, and to induce this hyperinvolution by pelvic massage, hot douches, strychnin, ergot, etc. He thus avoids the rebellious chronic metritis which so often follows incomplete involution.

Ventroscopy Through a Vaginal Incision.—It has taken some years for the majority of operators to acknowledge the advantage of approaching the female organs of generation through the vagina rather than through the abdominal wall in selected cases. Even in these there are many authorities who claim that the absence of free view of the field is an absolute obstacle to the use of this route. D. V. OTT (C'blatt Gyn., No. 31, 1902) gives in detail an interesting description of his method of obtaining a very good view of the lower half of the abdominal cavity. After the incision in the vagina is made, with the patient in the usual exaggerated lithotomy position, her trunk and head are lowered until they assume the position of Trendelenberg, without, however, in any way modifying the previous arrangement of the lower extremities. He now passes into the vagina, against the anterior wall and the cervix of the uterus, a speculum somewhat like the Sims, with the blade at an obtuse rather than a right angle with the shaft, and carrying near its extremity a powerful incandescent electric lamp, to which wires pass along the

handle of shaft. The posterior vaginal wall and rectum are retracted by a similar instrument. The attitude of the patient secures the gravitation toward the diaphragm of all the bowels, so that a perfectly free path of view is afforded of all the lower half of the abdomen, which may be increased by pulling the abdominal wall forward with volcella forceps at the navel. In this manner the former objection against the vaginal route is in part overcome, and certainly, where an incision for diagnosis is desirable with the least possible scar to the patient, this simple procedure is exceedingly serviceable. With experience, in cases where organs have been removed, and thorough examination of the cavity is desired, a great deal of information may probably be obtained with it in a short time.

The Treatment of Placenta Prævia.—In the opinion of J. B. Delee (Am. Gyn., August, 1902) placenta prævia is more formidable than most laparotomies, and the patient should be preferably in an obstetric operating-room. Regard for the child must be secondary to regard for the mother. Under the older method of Braxton-Hicks version the mothers could almost all be saved, but most of the children were lost. By Cesarean section the child can be saved, but the danger to the mother is great, especially as retraction of the uterine muscle at the cervix is not good, and therefore hemostasis is uncertain. The author induces labor by puncturing the bag of waters, inserting a colpeurynter into the uterus, and making traction on the tube. If the hemorrhage is slight and the pains regular and strong, one must wait; a larger hemorrhage demands puncture of the bag of waters. If this does not stop the hemorrhage deliver at once by forceps if the head presents, by the breech if this presents, by podalic version and extraction if the head is not engaged. But if the cervix is not yet fully dilated, the leg may be brought down by version until the breech tampons the cervix, then slight traction is kept up. The cervix in placenta prævia seems more distensible than it is, so do not induce too rapid delivery. A safer treatment for the child is to tampon by the colpeurynter, which is placed inside the membranes resting on the fetal surface of the placenta, and is distended with a weak solution of lysol. The pains soon begin and the bag is expelled in two to eight hours. If the head has followed the bag and engaged in the pelvis the hemorrhage has ceased, and if the fetal heart-sounds are normal the case may be left to nature. If at any time before the cervix is fully dilated, there should arise an indication on the part of the child for immediate delivery it must be disregarded, as the danger is too great for the mother. When the child is born it is advisable to remove the placenta and membranes at once, and manual removal is not seldom necessary. Postpartum hemorrhage may be expected. Do not waste valuable seconds on uncertain methods of hemostasis, but if the bleeding is more profuse than it should be tampon tightly the whole uterovaginal tract. If much blood has been lost give hot saline solution under the skin, not by rectum, as the latter interferes with local treatment.

Pregnancy and Rectal Cancer.—Pregnancy complicated by cancer of the rectum is extremely rare, only 13 well-authenticated cases being reported in literature. This fact is explained on the grounds that cancer usually follows the climacteric, and that carcinoma of the rectum is more rare in women than in men. The proper procedure from the standpoint of obstetrics for cancer of the rectum in pregnant women is, according to Holzapfel, the total extirpation of the neoplasm, manifestly because its presence so narrows the pelvic canal that a living child can otherwise hardly be born. In cases, however, where the cancer itself does not permit of operation, the indications are to provide otherwise for the birth of a living offspring. These inoperable cancers ordinarily take up a great space in the pelvis, and the birth of a full-term living child through the natural channels is almost always impossible for this reason. It is almost always necessary to perform a Cesarean section. Of the cases reported in literature, seven concerned such an operation. If the carcinoma is advancing so rapidly that the death of the mother is foreshadowed before the end of the pregnancy, Cesarean section must be carried out, or, if the birth canal is still large enough, a premature delivery must be brought about. Another condition is when the child within the womb is already dead, and the mother presents an inoperable cancer. In such cases Cesarean section must be performed only when absolutely indicated; that is, when other obstetrical operations are no longer possible on account of narrowing of the pelvis. It is to be remembered in this connection that carcinomatous tissue has very little elasticity, and is therefore more easily torn than the normal tissue. Cruveilhier and Kürsteiner both reported great damage to the rectum in their efforts to extract the child under just such conditions. There are, however, many of these cases in which a vaginal operation will permit the delivery of the child with sufficient readiness, and yet with greater safety to the mother than a Cesarean section. Quite otherwise are those cases of cancer, according to Z. Endleman (C'blatt Gyn., No. 32, 1902) which permit removal of the growth by surgical measures, a procedure which must be carried out as quickly as possible. The chief question is whether the pregnancy should first be ended and then the growth removed or vice versa. In literature there is only one case of carcinoma of the rectum operated on as late as the sixth month in pregnancy, and that was followed by abortion four days after, and then on the fifth day by the death of the mother. With only this one case as a guide, it is impossible to say that no operations of this kind should be done during pregnancy. Probably a good rule will be that if the tumor is small and situated low down in the rectum, its removal without interfering with the pregnancy is proper. During such an operation it is necessary to expect greater hemorrhage, because all the organs of the pelvis are in this state more richly supplied with blood. It would also be natural in the majority of cases to expect abortion, not only through infection, but also through various accidental damages to the womb and its contents. Since the lochia will invade any fresh wound, it is advisable to separate the operations of abortion and removing the neoplasm by as many days as possible.

Cesarean Section after Death.—This operation, done soon after death of the mother in the latter period of confinement, has so often met with failure that the report of a successful case should be of interest. H. Jungeblodt (Deut. med. Woch., September 4, 1902) performed the operation within 17 minutes after the sudden death of the mother (cause not stated). The child was deeply asphyxiated, but was revived in 20 minutes by the usual methods. The mother had been near term, and in previous good health. The infant was in good condition at the time of writing, almost a month later.

Vaginal Operations for Retroversions.—In a certain class of cases the vaginal route is considered the best for securing the uterus in position and maintaining it. H. N. Vineberg (Med. Rec., September 6, 1902) some time ago reported a series of 50 cases in which he had sutured the anterior surface of the uterus to the vagina by this method, which he first used in 1893. A subsequent report is made to show the permanent value of the operation, and especially to demonstrate that pregnancy may subsequently occur and the patient

be delivered without any dystocia. The operation is, however, particularly indicated in cases of retroversion giving rise to symptoms in women past the child-bearing period or in women past the fortieth year, when a pessary cannot be worn, or is inefficient; and in cases of retroversion in women nearing the menopause, in which there is also a prolapse with rectocele and cystocele. The latter conditions must be operated upon also at the same sitting. A very useful aid in holding the uterus in place results from suturing the round ligaments to the vaginal wall after a simple median incision has been made through it.

Hebotomy.—The operation called hebotomy is one of the more recent procedures in surgery, as a rival of the older, symphyseotomy. The advantages it possesses over the older methods are given in the following terms by T. H. VAN DE VELDE (C'blatt Gyn., 1902, No. 37). The saw-cut lies, not in the median line, but to one side of it, so that the suspensory ligaments of the bladder and urethra are not damaged. The soft parts are much thicker to one side than in the median line, so that therefore an accidental tearing into the vagina is much less apt to occur. Dangerous bleedings are, for this reason, less frequent, and also for the reason that the clitoris is entirely avoided. The relation of the attachment of the adductor longus and gracilis muscles to the pelvis at this point tends to provide against undue separation of the bones after they have been cut through. The opportunities and the likelihood of complete prompt union are better between two sawn ends than between the bones which enter into a joint which has been opened. The disadvantage of hebotomy is that the course of the cut is very close to the large vessels of the thigh, which may be injured during the interference. Ordinary caution, however, ought to avoid this very difficulty. The indication for it is, chiefly, a pelvis in which the true conjugate and diameter is less than seven cm. It comprises, for the child, an operation that is not dangerous, with the likelihood of bringing it into the world living and undamaged; for the mother, a procedure which is much less disadvantageous than symphyseotomy in its results, and for the surgeon a means of treatment which may be carried out with equal facility and with somewhat greater satisfaction in its later results.

Eclampsia.—In those cases of eclampsia which appear just at the beginning of childbirth two possible methods of treatment claim attention; namely, intrauterine colpeurysis and Cesarean section. Without doubt the former is, for the average practising physician, the easier, but one cannot overlook the fact that forcible dilatation of the mouth of the womb has an unfavorable influence upon cases of eclampsia. Whether tropacocain (Winckler) is to prove in this connection a new means of overcoming the difficulty is still to be proven. On the other hand, however, the ordinary cases of eclampsia are in our hospitals and clinics, most successfully treated by the Cesarean section, because the uterus is so quickly emptied by it, and the other dangers of this disease thus stopped. JALIREISS of Augsburg (C'blatt Gyn., 1902, No. 35) reports two cases of eclampsia in which he emptied the uterus by the vaginal Cesarean section, as originally suggested by Dührssen, in the first case with favorable, and in the second case with unfavorable results.

On the Question of Acetonuria in Diseases of Women.—In a majority of cases of fibroid of the uterus examined by Dr. KREVOSHEIN (Russky Vratch, No. 31, 1902) he found the quantity of aceton in urine was increased. The reason for it the author sees on one hand in the decreased quantity of hemoglobin in the blood, and on the other hand in the degenerative changes in the blood-vessels and heart of these patients. Both conditions produce an insufficiency of oxygen in the tissues, which is generally accepted to be the cause of the appearance of aceton in the urine.

Attendance on Scarlatina and Obstetrics.—The general practitioner is almost daily confronted with the problem of what he should do with obstetrical cases while attending infectious diseases. A. REICH (Am. Jour. Obstet., August, 1902), in discussing this question, takes a diametrically opposite view to that taught in the text-books. From November, 1900, until March, 1901, this physician had occasion to treat 78 cases of scarlet fever in 25 families. During the same period, he attended 40 women in confinement. Though some of his patients had scarlet fever during their puerperium, there was not a single case of sepsis. The writer concludes from his personal experience that in the parturient women infected with scarlet fever it runs an ordinary course, and that, while scarlet fever and puerperal sepsis may cöexist, each runs its distinctive course.

Cesarean Section, Following Ventrosuspension.—The extensive compilations of the cases of ventrosuspension, ventro- and vaginal fixation show, both in this country and abroad, a large percentage of dystocia, says A. BROWN (Am. Jour. Obstet., August, 1902). The cases necessitating abdominal operations have been largely fatal in results, as they have been resorted to too late, and the risk of sepsis has been increased by the exhaustion of the patient and by the previous efforts at delivery by the natural passages. The 808 American cases collected by Noble show 20 per cent. dystocia in pregnancies following uterine suspensions or fixations, with a mortality of six per cent. One was a Porro-Cesarean section with fatal results. European statistics, taken from 175 pregnancies, show 17 miscarriages, seven premature labors, 133 full-term labors. Of these, 15, or 11 per cent., necessitated operative interference. There were three Cesarean sections, two of which were fatal. The author thinks that in the light of our present knowledge in cases where no other course of treatment seems to offer so much as ventral suspension, the patient should be warned of the necessity of careful supervision if pregnancy ensues, that the artificial freeing of the uterus, or labors induced before the cervix is drawn too far posteriorly may be done; or, in case the pregnancy is permitted to advance to full term, that she may be delivered by Cesarean or Porro-Cesarean as the operation of choice, rather than of necessity, after exhaustion of her vital forces subsequent to prolonged ineffectual labor.

Sarcomatous Enchondroma of Pelvis During Pregnancy.—A very interesting case of this description was admitted to the Glasgow Maternity Hospital and was in the seventh month of pregnancy. ROBERT JARDINE (Jour. Obstet. and Gyn. Brit. Emp., August, 1902), in describing the case, found an enormous sarcomatous euchondroma arising from the pelvic wall. The child was still alive, and it was decided that though the prognosis for the mother was hopeless, and as the child would not be viable, it would be well to wait and then perform Cesarean section. Nine days after the admission of the patient to the hospital Cesarean section was decided upon and performed. The child was found to be dead. The uterus was closed, as was also the abdominal wall, no attempt being made to remove the tumor. Twenty-four hours later the mother died. Autopsy was performed, and the whole pelvis removed. There were no metastases in any of the organs. Microscopic examination of the growth showed it to be composed almost entirely of large, rapidly growing cartilage cells, with here and there small groups of cells suggestive of sarcomatous degeneration. No origin of the tumor mass could be determined upon.

HYGIENE.

Flies and Disease.—From a lengthy article upon hygiene, embodying a plea for pure air, water and food, and for municipal prophylaxis of disease, by E. ENELMAN (Hab. Med., Year v, No. 8, August, 1902) a timely suggestion concerning flies and other insects as disseminators of disease may be gleaned. Now that the prophylactic war against the mosquito has been initiated, extermination of the fly seems to be a question well worth consideration. The author calls attention to the observation of Nicholás, confirmed by Buchanon, that recrudescence and diminution of cholera coincide with fluctuations in the number of flies. Other investigators quoted as having pointed out the possible rôle of the fly in the transmission of disease are: Hoffman, who found the tubercle bacillus in the dejecta of flies from the wards of a hospital for tuberculous patients, and who subsequently produced tuberculosis in animals by inoculation of a triturated preparation of such flies; Grelac, who demonstrated trichinæ in the stomach and intestines of flies fed upon meat infected with trichinosis; Grassi and Stiles, who discovered respectively the embryo of tinea and ascaris lumbricoides in the bodies of these insects. The suggested possibility of dissemination of infectious diseases generally through such agents affords much food for thought.

Gas Leakage and Public Health.—Although every one is at times temporarily annoyed by gas leakage into the house or adjacent street, very few of us really appreciate the enormous quantity which is constantly being poured into the atmosphere of our cities. During the past few years J. C. BAYLES (N. Y. Med. Jour., August 23, 1902) has made a careful study of this nuisance and finds that the normal leakage of a six-inch main is about 225,000 cubic feet to the mile per annum. In Manhattan, as nearly as can be figured, there is a loss of about 11 per cent. of the output, or about 8,000,000 cubic feet per day. Of the gas which is ordinarily used in this city about 30 per cent. is carbon monoxid, the poisonous qualities of which are well known to the medical profession. Professor Jackson of Harvard found that vertigo was caused by the presence in the atmosphere of a room of one-tenth of one per cent. of water-gas, and very small percentages have been found to act as energetic blood-poisons. Habitual exposure to such a vitiated atmosphere makes health impossible and is undoubtedly responsible for many of the unusual cases of chronic anemia which are now so numerous, and which cause so many varieties of symptoms.

SURGERY.

Hip-Disease.—It is customary to describe the diagnosis of the three stages of hip-disease, but A. R. SHANDS (Am. Jour. Obstet., August, 1902) does not consider this necessary, as the time of importance is the first stage, after which, if diagnosed and properly treated, no later stage should take place. The symptoms to observe in early diagnosis are: (1) Stiffness of the joint due to tonic muscular contraction; (2) attitude of the limb in standing, walking or lying, and either flexion, adduction or abduction; (3) lameness; (4) atrophy; (5) pain; (6) swelling. These are in the order of their importance. In differentiating this disease in the early stage quite a number of affections at times present themselves; but the author considers only rheumatism, contusion, sprain and neurosis of the hip-joint. Infantile paralysis, acute synovitis, bursitis and periostitis are a few others to be taken into consideration. In the treatment of the early stages there are two great divisions of opinion among surgeons—the radical method, which is to excise the head of the bone, producing a rapid cure of the disease but often resulting in a flail-joint useless for locomotion, and the more conservative method which depends upon the well-established fact that there is a tendency to spontaneous recovery in all tubercular bone lesions. Following out conservative treatment, the joint should be protected against all jar, exaggerated pressure, or violent motion; therefore, the indications are to furnish fixation, extension and protection; to benefit the patient's health in every possible way; to prevent and correct deformity, and to meet such complications as may arise. The best mechanical means of immobilizing the hip-joint is the plaster-of-Paris spica. If distortion is present it should be corrected before the application of the plaster. No rule can be laid down as to the length of time the plaster should be kept on. Generally speaking, this will be from three to six months, or even a year. It is worse than useless to apply a brace until spasm has subsided. How long shall a brace be worn, and when shall it be applied? It should not be applied until muscular spasm has been sufficiently overcome to prevent the recurrence of deformity. It should be continued just as long as there is any evidence of disease, be the time one year or five. The best brace is one which will afford the best protection to the joint and furnish traction sufficient to prevent the occurrence of deformity during the convalescence.

Cancer.—Although the tradition of the heredity of cancer is so deeply rooted in the popular mind, cancer can be conveyed by contact, if the receiving soil is favorable; and every hopeless case of cancer should be isolated, according to A. L. SMITH (Am. Jour. Obstet., August, 1902). This physician has found it to be the exception and not the rule that his cancer patients have had cancerous fathers or mothers. It has been the rule that they have lived in the house with a cancerous husband, or with a person of no blood relationship to them; or, as in the case of two sick nurses, they have attended a woman with a cancer, or have been exposed to contagion in other ways. Hence precautions should be taken to limit the spread of the disease, such as the wearing of jute-pads to collect the discharges, which pads should be burned; also, frequent douching with formalin or permanganate of potash to destroy the cancer-cells, and disinfection of the patient's hands, as well as the hands of her attendants, whenever they are brought into contact with diseased surfaces. Panhysterectomy should be practised where the cervix alone is involved. If hemorrhages take place after menopause it is almost always an evidence of cancerous involvement of the uterus, and the organ should be immediately removed. All lumps should be taken from the breasts of women who have reached about forty years of age as soon as discovered, instead of waiting six months to make sure whether they are cancers.

Spinal Anesthesia.—This method of inducing anesthesia, which has been in practical use for about three years, and has been employed in between 3,000 and 4,000 cases, has passed the strictly experimental stage. SAMUEL L. WEBER (Am. Jour. Obstet., September, 1902) first employed it in February, 1900, and has had experience with it in about 150 cases. The solution of cocaine is prepared by the druggist as cleanly as possible, with the following formula: Antipyrin, 2 gm., cocaine hydrochlorate, 2 gm., acid boric, 2 gm., water, 100 c.c. This solution is permitted to stand 48 hours, and at the expiration of that time, the author considers it to be sterile. Failures to produce anesthesia are due to these causes: (1) Inert cocaine; (2) failure to penetrate the spinal canal; (3) failure of the solution of cocaine to be injected into the subarachnoid space; (4) in some cases the packing of the barrel of the syringe is defective, so that nearly all the cocaine solution dribbles out instead of going into the subarachnoid

space. The disagreeable after-affects as described by the author are parasthesia, nausea, headache, fever and delirium. There were no deaths among the author's cases. Spinal anesthesia will find its most extended field in obstetrical work, though it may be used (1) for all operations upon the lower limbs; (2) for all operations on the perineum; (3) for all groin operations; (4) for vaginal work; (5) for vaginal hysterectomy and adnexia operations through the vagina; (6) for bladder operations; (7) for intra-abdominal work. Occasional operations higher up on the body may be performed, such as excision of ribs, empyema operations, amputations of the breasts, operations on the arms, tumors of the neck, and even a goiter operation. In kidney-disease, acute bronchitis and chronic bronchitis the procedure is not contra-indicated. Spinal anesthesia saves assistants. In myocardial disease spinal anesthesia offers no advantage over ether narcosis. In old topers and in those cases where chloroform and ether can not be carried beyond the stage of excitement, cocaine spinal narcosis is especially helpful. This is also true of cases of shock and hemorrhage. The objectionable features of subarachnoid cocainization are: (1) The fussiness of the injection; (2) the nausea and vomiting, and (3) the fact that the patient is conscious during the operation. The mortality is high for the few operations that have been performed with this method, but most of the deaths have been among the aged and debilitated, who also give a high mortality with chloroform and ether.

Accessory Thyroid Gland.—An instance of this comparatively rare condition is recorded by E. L. SHURLEY (Phil. Med. Jour., September 13, 1902), in which removal was followed by myxedema. A girl of sixteen presented a tumor as large as a hen's-egg in the pharynx at the base of the tongue, which caused progressive difficulty in deglutition. General health and condition were very good. The tumor was removed, under chloroform anesthesia, by a heavy wire snare. The hemorrhage, which was considerable, was controlled by compresses of adrenalin solution. The wound healed in a week. About three weeks later she exhibited well-marked signs of myxedema—swollen skin, mental dulness, headache, debility, etc. Rapid improvement took place from the administration of thyroid extract, grs. 2-5, t.i.d., which has been continued intermittently. Histological examination showed the growth to be a true thyroid. The author call attention to the fact that there was no evidence indicating atrophy of the normal thyroid, but thinks that the organ must have been abnormal in its functional activities, in a condition probably analogous to those cases of goiter in which the structure has undergone fibrous degeneration to the detriment of the vesicles and their secretory lining.

A Case of Spontaneous Rupture of the Heart-wall.—The interest of this case lies, according to Dr. RUCHINSKY (Bolnit. Gaz. Bot., Nos. 21 and 22, 1902), in the fact that the rupture took place in a generally fatty heart without any thrombosis and secondary coagulation necrosis of the muscular tissue in the place of the rupture. The plausible explanation of such cases is that there formed previously an interstitial miocarditis, the wall of the heart has become thinned and consequently more easily vulnerable. Any cause exciting the heart to an abnormal amount of work could distend and eventually rupture such a thinned place.

Postoperative Crural Thrombosis.—In a series of over 7,000 cases operated upon in the gynecological department of the Johns Hopkins Hospital, B. R. SCHERR (N. Y. Med. Jour., September 6, 1902) found that there were exactly 48 cases of crural thrombosis during convalescence. The factors which are supposed to exert an influence in causing this condition are: (1) Changes in the blood itself; (2) mechanical interference with the circulation; (3) alterations in the vascular walls, and (4) infection. Thrombosis occurred in the right leg in only 10 cases, and this is explained by the presence of the sigmoid flexure on the left side obstructing the return circulation. A peculiar fact brought out by this series was the large percentage of cases following operations for the removal of large tumors, 58 per cent. occurring after extirpation of pelvic tumors. These are not, as a rule, the cases in which there is the most traumatism, the loss of blood is not usually so marked, and the chance of infection is not so great as in hysterectomy for inflammatory conditions. Yet but one case occurred after the latter trouble. Traumatism, especially from too vigorous use of deep retractors, seemed to be responsible for a sort of epidemic of cases. Pain, chills and a constitutional disturbance which appeared in a large percentage of the cases seem to point strongly towards an infective origin. In practically all the cases the patients were doing well, and had gotten along to about the tenth to the sixteenth day when there was a sudden pain in the left thigh or leg and an accompanying rise of temperature. Albumin occurred in the urine in 20 cases, or a percentage of 41. Singer observed that in his cases of thrombosis there was a rapid pulse previous to the rise of temperature, but in this series the pulse seemed to correspond with the height of temperature. The treatment consisted in keeping the patient at rest in bed with the affected leg elevated. Sometimes the leg was covered with lead and opium wash or simple cold applications, or wrapped in cotton. The position should be maintained for at least five weeks, for subsequent swelling and pain were frequent symptoms when this rule was not observed.

Surgical Treatment of Chronic Bright's Disease.—Such wonderful results have recently been reported by several surgeons who have operated upon supposed cases of chronic nephritis that a thorough investigation by competent clinicians is necessitated. The beneficial results were first observed after operations had been performed to meet other indications, such as movable kidney and the like. These surprising benefits led the operators to try the operation upon apparent cases of acute Bright's in which there were pain, hematuria, albuminuria and casts. In many instances the results were astonishingly good, and Edebohls who believes in decortication with the subsequent formation of adhesions, attempts to explain the rationale of the treatment by supposing that new vessels are formed in the tissues about the kidney, and thus there is an increased blood-supply to that organ. He reasons by analogy from the remarkable relief of certain symptoms which has attended some of the operations upon cases of cirrhosis of the liver. J. A. SCHMITT (Med. Rec., September 13, 1902) shows that the reason why cases of cirrhosis are relieved is simply because there is a new channel of exit into the general circulation given to the blood from the digestive tract. The blood is short-circuited, so to speak, and not compelled to travel through the liver, which is so diseased that its channels are obstructed. No improvement is attempted or expected in the tissue of the liver itself, and no symptoms are relieved except those due to obstructed circulation. One contention made by the operators is that chronic nephritis is frequently unilateral, but it is now generally held that this disease is only a local manifestation of a constitutional condition and that it is due to some toxic principle circulating in the blood. Therefore it is difficult to conceive how a case severe enough to give symptoms could be wholly unilateral. The claim that by direct palpation it is possible during the operation to detect disease of the kidney seems unwarranted, for it is frequently very difficult during a postmortem and after section of the organ to determine the character and ex-

tent of the disease without the aid of the microscope. It has not yet been proven that there was any important blood-supply formed in the connective tissue adhesions, and if there was it seems a little strange that it should form anastomoses with the circulation through the glomeruli and tubules. Certainly there is great need of further investigation upon animals and upon the organs of those persons previously operated upon in this manner. It is, however, fair to say that operations upon the kidneys have proven to be of benefit in various conditions. In acute infectious diseases aneuria, with uremic symptoms threatening the life of the patient, can be successfully combated by capsular incisions or renal cleavage, which relieves congestive swelling and excess of intrarenal pressure. Operation upon one side is then usually sufficient. Temporary relief has sometimes been afforded when these symptoms arose in the course of a chronic nephritis. In exceptional cases colicky pains and hematuria may be caused by chronic Bright's, and here again surgical interference might relieve the hemorrhage and pain. Nephropexy may cure the symptoms due to the movable kidney and as the displacement frequently causes pain and albuminuria, these in turn would be benefited. If, however, the movable kidney is affected with chronic Bright's disease, this affliction will remain unchanged by the operation.

Operative Anastomosis Between the Vena Portæ and Vena Cava.—The advantage of leading the blood from the vena portæ for therapeutical purposes is now recognized, and indeed established, so that recently surgical interferences have been devised to accomplish it, but thus far no attempt has been made in man to lead the blood from one directly into the other vein. In Tahna's operation, which is not yet fully justified in the surgical world, an effort is made to bring about indirect anastomosis. But this is not always practical. The known methods for producing direct anastomosis are, at the present time, confined entirely to the laboratory. I. TANSINI (C'blatt Chir., 1902, No. 36) seems to have evolved a practical method of accomplishing this direct union between these two large veins in man. After a number of experiments upon the body, which demonstrated the practicality of this means, he described it to one of his students, U. S. Basile, who performed it 10 times on dogs, with seven successes. Like results have rarely been attained in the first series of experiments as to such serious procedures. The technic of the procedure consists in a terminolateral anastomosis of the vena portæ with the vena cava. The vena portæ is identified and isolated, together with a small piece of the vena cava. For the temporary control of hemorrhage, clamps covered with rubber are lightly placed upon both veins, two on each. On the interval between the two on the vena cava, a small cut is made, or, better still, a very small spindle-shaped segment is removed. Into this opening the vena portæ, which has been cut away from hylum of the liver, is drawn and the mortise of the wound is sewn about with silk. When the clamps are removed the blood may be seen to pass from the vena portæ into the vena cava with considerable force, owing to the retention of the blood in both veins by the clamps just spoken of. In the animals which were made the victims of this experiment the food consisted of some meat and plenty of bones. For some months they remained in good health, and were then killed, and the union found to be satisfactory.

A Needle-Holder and Suture-Carrier Combined.—Of the simple, small details of operating, the placing of sutures takes perhaps the most pains and time, and efforts have long been directed towards overcoming this difficulty. Consequently a vast number of suture-carriers and needle-holders are on the market, of all classes, good, bad and indifferent. The following is presented by K. CZERWENKA (C'blatt Gyn., 1902, No. 36) as possessing a number of advantages. The needle-holder is practically the same as that sold in this country under the name of Bull's, with the exception that, instead of two handles of uniform design, one is large, cylindrical and hollow from the catch at its base to the pivot where it joins its fellow. Into this hollow there screws a cylindrical suture-carrier, which occupies perhaps two-thirds of the length of the handle, beginning at the clasp, and the remaining third is taken up by a tube, incorporated with the cylinder and leading from it, down the handle, to a point near the pivot, where a hole is drilled. The silk, on a suitable bobbin, is placed within this cylinder after it has been unwound enough to carry a strand through this fine tube and the hole. The suture-carrier is then put into the handle and secured in position. Through the feed-hole in the handle, near the pivot, the strand of silk is drawn on indefinitely, and threaded directly through the needle. It is a very ingenious and rather simple device, with the great objection of the difficulty of determining how the supply of silk on the bobbin is running. It would appear that the time necessary to replenish and set up the instrument would be practically that which is necessary to sew up an ordinary wound in the old-fashioned way.

A New Route for Gastrojejunostomy.—The operation of posterior gastrojejunostomy has gained favor to a great extent at the present day, but it has failed to become universally adopted because of certain disadvantages connected with the route—that part of the operation which passes the bowel through the mesocolon; in other words, with the next to the last step of the operation. J. B. HALL (Lancet, September 6, 1902) says that this method is not so easy as the anterior operation, and requires a slightly larger incision. It cannot be performed outside the body cavity in the manner that the anterior operation can and by thus involving a greater peritoneal exposure it increases the risk of shock and peritonitis. Moreover the necessary perforation of the transverse mesocolon may occasion troublesome hemorrhage from mesenteric veins. As the patients on whom gastrojejunostomy is performed are not infrequently in a serious condition of exhaustion these objections to the posterior route cannot be lightly dismissed. Cases are also on record in which the operation has only given temporary relief, owing to the subsequent contraction of the opening in the transverse mesocolon having caused constriction of the anastomosing loop of jejunum. Granted, therefore, that a posterior opening in the stomach has advantages it remains a question whether the objections to the usual posterior route do not outweigh them. While operating on a case of dilated stomach some months ago the author noticed how easily the stomach wall could be reached through the gastrocolic omentum, and it occurred to him that by the advantages of this route the usual posterior operation could be avoided and at the same time the objections to it entirely obviated. The gastrocolic omentum is a thin, functionless and practically bloodless membrane, through which the finger can be easily pushed, and is readily accessible through a small abdominal incision. When the operation by this route is complete the posterior wall of the stomach remains drawn down as a funnel-shaped process, and any gastric contents can be seen passing through it when the clamps are removed. Hall adopted this gastrocolic route in four cases, and has been much pleased with it. A posterior anastomosis is obtained with a minimum of peritoneal exposure, and without interfering with the transverse mesocolon. The jejunum is drawn up in front of the transverse colon, as in the anterior operation, but there is no evidence that this is any

disadvantage. It usually crosses the colon well to the left where the latter passes backward to the splenic flexure, and consequently no pressure is exercised upon it. His paper ends with a summary of four typical and successful cases of this operation, which is certainly simpler than the former method, and should give better results.

Lumbar Hernia.—This form of hernia is a protrusion through or in the neighborhood of Petit's triangle dorsi, whose size varies greatly in different persons, and exists essentially in the interval within the latissimus dorsi muscles behind and the external oblique muscles in front. Occasionally these two overlap each other at their attachment to the iliac crest, so that no triangle of Petit exists. In many cases of lumbar hernia disease has weakened he abdominal wall at this spot; in others, there is a clear history of injury. All of these herniæ have a tendency to strangulate, which was the cause of death in the very first case recorded, as long ago as 1731. Ravaton, in 1738, operated successfully on a strangulated lumbar hernia. K. W. JONES (Lancet, September 13, 1902) reports another successful operation, in a typical case of lumbar hernia. The patient was a well-developed Sudanese, forty-five years old, who noted a swelling four or five years ago, with considerable recent pain and tenderness in it, with constipation and dyspepsia. No assignable cause was given, and for some days prior to the operation he had a temperature from 99° to 100° F. On examination there was a large tumor, oval, slightly irregular in outline, extending from the level of the iliac crest inward and upward towards the spine, overlapping the three lower ribs, giving the impression of being composed chiefly of fat, but on reduction through Petit's triangle, which was easy, a gurgle occurred. Impulse on coughing was well marked. A superficial skin scar overlay this tumor and was probably made by the Sudanese for medical purposes. They are very apt to cut the skin with a razor for almost any purpose. In the opposite region there was what appeared to be another hernia, but without symptoms at the present time. The patient presented a left inguinal hernia. The operation consisted in an oblique incision downward and forward. After retracting the edges of the external oblique and latissimus dorsi muscles, the lumbar fascia was incised. Here a large mass of fat presented. The field of the operation appeared to be divided into an upper and a lower part by fibrous bands, above and below which the fatty, somewhat thickened and dilated tissue colon into the wound what thickened and dilated tissue protruded. Pulling on this tissue brought the ascending colon into the wound. The fat was removed, the colon replaced, the edges of the latissimus dorsi and the external oblique were united with silkworm gut, and the wound was closed. Primary union and uneventful recovery followed.

Tenotomy of the Tendo Achillis in Fracture.—The mechanism of displaced fragments of broken bones is at the present time much better understood than formerly, and accordingly the means of treating fractures with a view to correcting deformity have improved. W. T. THOMAS (Lancet, September 6, 1902) enters a "Plea for Tenotomy of the Tendo Achillis in Complicated Fractures" in the following terms: When the chief deforming agent is the gastrocnemius one must effectually prevent its action. In slight deformities this is readily brought about by flexion. Traction often increases the trouble or becomes irksome after a few days, even if it does not damage the skin. When the muscle is acting at a great mechanical advantage the hope that it may be overcome by steady slowly increasing traction is often doomed to disappointment. By traction of the leg in a very oblique fracture of the tibia the deformity is often increased and the attempt to remedy matters by pads often makes matters worse, for although the pointed fragments under the skin in front may be depressed the sharp end of the other fragment may be, and often is, pushed backward into the calf muscles. The subsequent result is not satisfactory. Slight degrees of flexion at the knee can be tolerated, but extreme degrees cannot. If then it is found that a position compatible with comfort does not relax the gastrocnemius the tendo Achillis ought to be divided. There is danger of forgetting its usefulness in the rage for wires and screws, and it came as a surprise to this author to read in Tilmann's Surgery "that tenotomy of the tendo Achillis is much practised, especially in England." Thomas's observation are entirely to the contrary, and he says he should have been inclined to replace the word "practised" by "neglected." Erichson is almost silent on the subject, merely quoting Bryant, but he qualifies the allusion by stating that tenotomy "might be of use" in fracture of the lower end of the femur. The more modern text-books mention the procedure, but lay no stress on its application. Jonathan Hutchinson, however, in a translator's note in "Helferich's Fractures" advocates tenotomy, and speaks highly of it in complicated fractures. It is a pleasure to see the difficulties of a case of oblique fracture disappear as soon as tenotomy is performed, the sharp projecting fragment immediately falls into line, and the subsequent treatment becomes of the simplest description and entirely free from anxiety. Tenotomy can easily be performed under eucaine, but in very nervous patients, nitrous oxide or even other anesthetics, may be necessary. The author has only had occasion to tenotomize the tendo Achillis 12 times, but in each case any other treatment short of wiring or screwing would have resulted in faulty union. Even after wiring fractures of the lower extremity, if any great gastrocnemius strain acts on the wire the tendon ought to be divided, otherwise the wire (or screw) will quickly loosen by bone-atrophy. Long before the patient is up the tendons have united, and it has never been found necessary to keep oblique fractures longer in bed than transverse fractures.

EYE, EAR, NOSE AND THROAT.

Epithelium of Eyelid Cured by Adrenaline Chloride.—A curious case is reported by W. B. Marple (Med. Rec., August 23, 1902) in which the use of adrenaline as a placebo unexpectedly resulted in the cure of an epithelioma of the eyelid. A woman forty-five years of age gave a history of having had a characteristic ulcerating epithelioma for six months, and microscopical examination confirmed the diagnosis. While awaiting a more favorable time for operation the adrenaline was used, and in about six months the growth had entirely disappeared, leaving a small white scar. The diminution of blood-supply is given as a possible reason for the unexpected successful result.

Pterigium and Cauterization.—About a year ago A. Coe described a simple procedure in the treatment of pterigium, consisting in cauterization of the head of the membrane by means of a platinum wire, with a fine bulbar end, not larger than a very small pea, and heated in an alcohol-lamp. This author stated that he succeeded in obtaining practically complete cure in an extensive pterigium by three cauterizations of this kind, carried out at intervals of a few days. At the end of several months it was possible to make out only a light opacity, corresponding with the thickening in the conjunctiva, while the nearer tissues were entirely transparent. Since then another observer, F. B. LORING (Sem. Méd., No. 34, 1902), has employed this same treatment in 24 cases, with invariably good results, excepting in one patient, who presented a very extensive pterigium with large vascularities. For this he was

finally obliged to employ ligature. For his cauterization this author employs a platinum-wire loop about three mm. in width, mounted in a wooden handle. After having used cocaine in the eye for anesthesia, he touches the head of the pterigium with the convexity of the loop, heated to a white heat. He then moves the handle of the needle in such a manner that the balance of the instrument is parallel with the axis of the pterigium. In this manner it is usually necessary to practice one cauterization only, especially if care is taken to have the patient follow the preliminary treatment advised to decrease the vascularity of the membrane, for example, yellow oxid of mercury ointment. It is also good practice to use this medicine during the first few days after cauterization.

Ocular Manifestations of Diabetes.—Ocular disease of diabetic origin may be manifest in patients known to be diabetic, or may furnish to the ophthalmologist an indication of the systemic condition, unsuspected before examination of the eye, according to L. THILLIEZ. (Jour. Sci. méd. Lille, August 16, 1902). Skin-lesions, such as furuncles, eczema, etc., occurring upon the eyelids may, by their persistence or recurrence, suggest their origin. The ocular musculature, intrinsic and extrinsic, is often the site of lesions of diabetic origin. All the muscles may be paralyzed, but those supplied by the motor oculi are most frequently affected. Such paralysis usually subsides in a few weeks, when occurring in the earlier stages of diabetes, but in more advanced cases is rarely cured, being due, as a rule, to apoplectic hemorrhage. Paralysis of the pupillary sphincter is an early manifestation and is a consequence of intoxication. Repeated or prolonged conjunctival hemorrhage is met with; examination of the urine and the effect of diet and systemic treatment leaving no doubt as to its cause. The cornea is not spared in glycosuria, and here keratitis, from defective occlusion of the eyelid through orbicular paralysis, may be found. This is not to be confounded with suppurative keratitis of neuroparalytic origin, depending upon a diabetic lesion of the trigeminus. Iritis is one of the most frequently observed lesions in diabetes, and may occur in various forms, from a simple membrane covering the pupil, and which disappears readily under the influence of an appropriate regimen, to abundant fibrinous exudate upon the pupil and in the anterior chamber, with hypopyon and severe pain. Iritis may be quickly complicated with glaucoma. The most frequent ocular affection in diabetes is cataract. This may be of very rapid development (within a few days or even hours), especially in the young or in acute pancreatic diabetes of adults with rapid emaciation. There is no one characteristic which is pathognomonic of diabetic cataract, but it is always double. Opacities of the vitreous and retinitis occur, the latter presenting two typical forms, exudative and hemorrhagic. The most common diabetic lesions of the optic nerve are those of retrobulbar neuritis. Disturbances of accomodation and refraction are common. Thilliez believes that ocular lesions in diabetics are of serious import, as they are thought to be the result of vascular changes, toxic influences, or general deterioration of the organism. As to the prognosis of the various lesions, the author states that phlebitis of the ophthalmic vein alone renders inflammatory affections of the eyelid of grave significance. Muscular paralyses are serious if resulting from hemorrhage, as they are never fully cured, and suggest the possibility of cerebral hemorrhage. Retinitis and choroiditis are of serious import in that they are too often precursors of cerebral hemorrhage. Affections of the optic nerve are serious from their effect upon vision, and as an indication of the advancement of the disease. The prognosis of cataract in the young is always poor. The treatment of ocular lesions in diabetics is to be directed first of all to the cause; local treatment does not differ from that applied to similar affections in those otherwise healthy. The question as to the advisability of operation is answered in the affirmative by the author, who recommends the reduction of sugar to a minimum before operation, by appropriate diet, or by medication when necessary. The greatest diminution of sugar has been obtained by Thilliez through antipyrin, two or three grams in 24 hours, given for 10 days prior to operation. No ill effects arise if the drug be administered at the beginning of meals.

THERAPEUTICS.

Value of Ipecac.—The drug ipecac is discussed in an article by R. KOBERT (Ther. Monatsh., August, 1902) who distinguishes two genuine varieties, possessing three alkaloids; namely, emetin, cephalin and psychotrin. The last is present in only small quantities, is slightly poisonous and of not much therapeutic importance. The other two are strongly irritating to the skin and mucous membranes, yet when injected do not cause necrosis or abscesses, being absorbed too rapidly, but show deleterious effects upon heart, gastro-intestinal tract and kidneys. They should, therefore, be administered by mouth. Emetin is then the better expectorant, and cephalin the preferable emetic. Since the Carthagena ipecac contains twice as much cephalin as the Rio drug, it is the superior emetic, but it is also depressing to the heart, hence might well be employed locally by means of gargles. The antidysenteric action is supposed to reside in a glucosid, ipecacuanhic acid.

Treatment of Dysentery with Ipecac.—The efficacy of ipecac in dysentery is a long and well-established fact, but owing to the many synthetic remedies the drug is being employed less and less. J. STRASBURGER (Münch. med. Woch., September 9, 1902) is among those who laud it highly, for he has had a number of cases of amebic dysentery which have resisted all treatment until ipecac was tried. They were all acute exacerbations of a long-standing process, and the dose was one gram of the Rio article, with a full dose of opium, twice daily. Though in one case emesis followed, the effect was prompt and permanent, and in only one instance did a real relapse occur. That was several months later, and the relapse could readily be controlled. Further investigations on ipecac showed that, while it may be a specific for the amebic variety, it has little or no effect on the bacillary form.

Heroin as Anaphrodisiac.—Outside of its value in pulmonary diseases, there is only one account in literature of the efficacy of heroin in other (gynecological) conditions. This has led A. STRAUSS (Münch. med. Woch., September 9, 1902), a specialist in genito-urinary diseases, to try it in his branch, and he is well satisfied with his results. In the frequent nocturnal pollutions of young men, followed by headache and backache in the morning, one cg. of heroin, taken at night, combined with the usual precautions of sleeping on a hard mattress, etc., was of distinct value. Sexual neurasthenia with impotency and spermatorrhea, the result of sexual excesses and masturbation, did not yield quite so readily, and other remedies had to be combined with the heroin. With a third group, the various painful complications of acute and chronic gonorrhea, much better results were obtained, especially when the drug was given as a suppository. In the painful erections which follow phimosis operations and interfere with the healing, heroin often acted more promptly than sulfonal or the bromides. The author concludes that heroin is to be regarded as a valuable though not indispensable accessory in urological practice.

THERAPEUTIC HINTS.

Fetid Sweating.—

℞ Zinci sulphat.
Ferri sulphat.....aa gram 45.0 (℥iss)
Naphtol.
Essence Thymi.
Acidi hypophosphori....aa gram 0.5 (gr. viij)
Aquæ .....aa gram 250.0 (℥viij)

M. Bathe the parts morning and evening.

—Tshappe.

Hemorrhagic Metritis.—This condition generally follows a miscarriage or accompanies the small submucous or interstitial fibroma, writes F. Landry (Rev. méd., Can., August 6, 1902). If there is retention of placental tissue, or if there are fungosities, curettage is the only treatment, but in many ordinary metrorrhagias success will follow intra-uterine applications of tincture of iodin by means of a syringe, after the cervix has been dilated and the uterus swabbed out with an antiseptic. The patient should remain in bed about five days, though in some cases this is not necessary if the vagina is packed with iodoform gauze or glycerin tampons.

Acute Nephritis.—Absolute rest in bed, the legs wrapped in cotton covered with oiled silk. Exclusive milk diet; a glass of milk and Vichy water every two hours. Hot drinks to produce sweating, especially infusion of juniper-berries. Apply three wet cups to the lumbar region. Give saline purgatives to promote excretion by the intestine. Administer

℞ Cinchoninæ sulphat.....gram 0.12 (gr. ij)
Benzonaphtol .....gram 0.30 (gr. v)

One three times a day in cachet.

—*Le Nord Médical*, August 1, 1902.

Treatment of Thrush by a Sucking-Bag.—Take a tampon of aseptic cotton, impregnate it with powdered boric acid and a little saccharin, inclose in a silk or cambric sac, sterilize, and place in the infant's mouth. Under the influence of sucking the boric acid slowly dissolves, and so has a direct and continuous action on the saccharomyces albicans. If the fungus growth is extensive this treatment may be supplemented by buccal irrigations. A very prompt cure results.

—Escherich in *Le Nord Médical.*

Zoster.—The treatment has a triple object, to cure the vesicles, to prevent suppuration, and to quiet the neuralgic pains. Ichthyolgelatin, thiol and water-soluble varnishes are good applications. Neisser uses collodion and iodoform, Dupus and Scharff employ resorcin. Silver nitrate is not without danger. If the bullæ are confluent or ruptured a powder or paste is indicated, such as oxide or oleate of zinc, or these with ichthyol as recommended by Unna, or thiol, 10 to 20 per cent., as used by Buzzi. Lassar prefers nosophen, Franck uses tannoform. A good powder is

℞ Ac. tannici.
Bism. subnit..... aa gram 2.0 (gr. xxx)
Zinci oxid.
Amyli ..... aa gram 5.0 (gr. lxxv)

If the powders irritate, substitute a paste of zinc ointment and starch, with or without ichthyol or resorcin. The following is the formula of Kaposi:

Ext. opii.....gram 0.4 (gr. vij)
Ol. olivæ.....gram 20. (℥v)
Ceræ flav.....gram 10. (℥iiss)

That of Leistikow is:

℞ Ac. boric.....gram 2.5 (gr. xxxviii)
Cocain. hydrochlor.....gram 0.5 (gr. viii)
Petrolati .....gram 22. (℥vss)

If gangrenous or suppurative, apply wet compresses, followed by powdering with iodol or iodoform. For the pain one may employ morphine, chloral, belladonna and quinine hydrobromate.

Schoemaker advises:

℞ Ferri pyrophos.....gram 2.0 (gr. xxx)
Ac. arsenios.....gram 0.06 (gr. i)
Quin. sulfat.....gram 2.0 (gr. xxx)

M. Ft. in 30 pil. Sig: One three times a day.

Jamieson recommends 20 to 40 drops a day of:

℞ Tinct. nuc. vom.
Tinct. gelsemii.....aa gram 5.0 (♏lxxv)

Kaposi vaunts arsenic and antipyrin.

—*Le Nord Médical*, August, 1902.

Mercuric Cataphoresis in Chronic Inflammation of the Uterine Appendages.—In two classes of cases, catarrhal inflammation of the Fallopian tubes in young women, usually with involvement of an ovary and chronic pelvic peritonitis, G. Betton Massey (Jour. Adv. Ther., September, 1902) uses a metal positive electrode coated with mercury for insertion in the vagina, and applies the negative electrode to the abdominal wall. The treatment should be applied daily or triweekly. By the second month there is a diminution or suppression of the menstrual flow, but this soon returns to normal, though somewhat scant during the further continuance of the applications. The current used is 60 milliampères for five minutes. Complete relief from pain is secured in a few weeks to a few months.

Dry Hot Air in Nephritis.—Having noted a rapid disappearance of albumin from the urine in cases of nephritis which were being treated by hot air for rheumatism and arthritis deformans, C. E. Skinner (Jour. Adv. Ther., September, 1902) applied this treatment to strictly renal cases. As a rule asthma, edema, nausea, headache, and somnolence rapidly disappear, and the renal insufficiency seems overcome. How permanent the results are he is not yet able to state. Most of these cases have thickened arteries and a tension pulse, so the heat should be increased very slowly. The tension usually disappears during or after the first baking. The temperature of the first treatment should be 300° F., unless contra-indicated and in succeeding treatments 350° F. The regular diet should be milk, and plenty of water should be drunk. The bakings should be repeated every two or three days. Nothing else seems to have such a rapid effect on the general toxemia.

Erysipelas.—By a wad of cotton held in forceps and lighted after it has been dipped in alcohol Tregubow produces a burn of the first degree. He repeats the application two or three times a day, exposing the entire affected surface to the flame, and finds about two days sufficient for a complete cure of erysipelas.—*Jour. Am. Med. Assoc.*

Therapeutics of the X-Ray.—The curative power of an X-ray tube has frequently been judged by its ability to make a burn, but C. R. Dickson (Jour. Adv. Ther., September, 1902) finds that the production of dermatitis is unnecessary, undesirable, and can usually be prevented. In lupus vulgaris, rays applied to a moist surface lessen the discharge and change it from serous to purulent; applied to dry surfaces, the epidermis exfoliates and the part appears shrunken; in either case absorption of morbid products takes place leaving a smooth, soft, pliant scar. Of malignant growths some are cured, and most are reduced in size and freed from disagreeable odor and discharge, while the patient is relieved from pain and improved in general health. By causing partial atrophy the ray is used to produce depilation in sycosis. Tuberculous joints and sarcomas have been improved. The author used the rays over the solar plexus with good effect in a case of neurasthenia with gastric symptoms.

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MEDICAL PROGRESS AND THE ARMY MEDICAL DEPARTMENT.

THE publication recently of a series of articles with regard to "Surra," the disease that has been destroying so many animals in the Philippines, calls attention once more to the excellent work that has been accomplished by the army medical department of the United States since the many and serious pathological problems of our recently acquired tropical possessions have been so unexpectedly thrust upon its attention. A review of the wonderful progress made with regard to the prophylaxis of contagious diseases, and the practical application of sanitary principles that in a very brief space of time has effected a hitherto unprecedented reduction of the death-rate among the recently annexed populations seems almost too favorable to be true. The people of the United States have indeed cause to be proud of what has been accomplished from this humanitarian standpoint since expansion became the national policy. The medical profession of this country may well feel honored by the great practical advances made by the army medical department. If nothing else had been done but the discovery of the mode of transmission of yellow fever by a special mosquito, many times more lives would have been saved in a few years than were lost in the war; but this is only one of many valuable practical observations that have been made. For instance, more light has been thrown on the specific causation of dysentery than in many years preceding the outbreak of the war.

To know the cause of disease is very soon to be able to prevent its spread, and it seems probable that dysentery will not much longer be the serious scourge it has always been when large bodies of men are gathered together in barracks, camps, and the like, especially in hot climates. With regard to malaria excellent work has also been done, and the European medical world has admired the thoroughly practical way in which this great question of the limitation of malaria has been approached. Major Ross, the English authority on the subject, recently commended the example of our Government in this matter to the emulation of British military medical men. It begins to look now as though within a very few years, with malaria and dysentery under thorough control, and yellow fever practically eradicated—for there has been none in Havana for some time—the tropics may lose their dread fatality for the white man.

Other important sanitary reforms have been accomplished. The peculiar anemia that afflicted an alarmingly large number of the inhabitants of Porto Rico, and which was claiming an increasing series of victims every year, was thought to be due to some special pathological climatic or soil condition of the island. It has been demonstrated to be caused by the Anchylostoma duodenale, an intestinal parasite that has been shown in recent years to exist in many parts of the world. Instead of being a hopelessly progressive affection, this anemic condition is eminently tractable if taken in time. In fact the use of thymol as an internal parasiticide, followed by a cathartic, usually rids the patient of the affection.

The discovery that Malta fever existed in the West Indies as well as in the islands of the Mediterranean threw a new light on a disease hitherto supposed to be very limited in the range of its epidemicity. This discovery served also to lift the veil of obscurity that shrouded certain fevers, suspect of both malarial and typhoid origin, seen in our hospitals in this country in patients who had recently come from the West Indies. In nearly the same way the study of "Surra," which rages among the animals of the Philippines, and is caused by the sting of a special fly, helps to a better understanding of certain diseases in South Africa that are due also to the stings of various forms of flies. In these observations the Ameri-

can military medical men have been making deservedly commendable contributions to world medicine, and the army medical department has established for itself a proper share in that praise for enterprise and ground-breaking ingeniousness that Europeans have of recent years learned to recognize as characteristic American qualities.

It is with no selfish spirit of complacency that we are proud to publish the reduction in the death-rate of Havana from 91.03 during 1898, the last year of the Spanish possession, to 22.11 for 1901, the last full year of American occupation. This stupendous difference in the sanitary condition of reputedly one of the most unhealthy municipalities of the world was accomplished by the proper enforcement of modern sanitary regulations in less than three years. As an example of what can be accomplished even under unfavorable conditions, this hygienic advance must be set down as a great triumph for present-day sanitary science. It is, perhaps, somewhat unfair to compare the death-rate during the war-year with that of a year of peace, but the average death-rate of Havana for the ten years preceding American occupation was nearly 45, while for the last three months of United States rule before the government was handed over to the Cubans themselves, in April of the present year, the death-rate was scarcely more than 17.

The army medical department is at the present moment facing very serious conditions in the prevalence of plague and cholera in the Philippines. Already, however, not a few additions to our knowledge of these diseases have been made by the members of the department, and there seems every reason to anticipate that the work so nobly and effectively accomplished in the West Indies will be emulated in our eastern archipelago. Already the study of intestinal parasites there has served to throw light on forms of disease that had remained obscure for generations. It would not be beyond what might be expected from recent records elsewhere if the United States military medical men should succeed in solving the problem that has now for over seven years baffled the efforts of the English, French and Russians—the suppression of the plague, which every year since 1895 has caused hundreds of thousands of deaths in the East.

Certainly our army medical men are deserving of unstinted encouragement in this as in every other effort. Much as our army and navy have done to increase our prestige in recent years, the army medical department has almost done more. Those who would make little of their work, who would fail to realize the meed of appreciation and recognition it deserves, are consciously or unconsciously striving to undo the influence of one of the most humanitarian twentieth-century factors of progress. No reward can well be considered too great, and no encouragement for the enlistment of the best possible individuals in the work can be deemed misplaced or exaggerated. It is to be hoped that general appreciation of the work done by the department will be one of the features of popular education in the near future, and that this will prove an effective stimulus to proper legislation, which unfortunately has been thus far neglected.

THE MEDIAN AGE.

THE table that has been prepared by the Census Bureau to show the increase of the average age of the population is a most interesting exhibit, as it demonstrates the fact that the average *is* increasing, and that people live longer, even under the harrow of a greater nervous strain and tension than they did in the more primitive and less sanitary days of our forefathers. It also goes to show that improved plumbing and heating appliances have offset the effects of increased application to business affairs, and that the results of modern cookery are as nutritious, even if they are not as reminiscent, as the pies that our mothers used to bake.

In the last volume of the census this increase was shown from 1880 to 1900 by computing the average of the population of the United States. In 1880 this was 24.6 years; in 1890 it was 25.6 years, while it had risen in 1900 to 26.3 years. As, however, the ages of the population were not reported by single years before 1880, this method of measurement cannot be applied to the results of previous censuses. Another mode of getting at the age of a large population is by the use of the "median" in place of the average in its ordinary form, the median age being one in which half of the population is over it. This may be computed very accurately for a population the ages of which are reported only by five-year periods, if we assume that the population within the five-year group containing the median was distributed among the five years in the same proportion that existed in the same age class in 1900. By the aid of this assumption it has been possible to obtain the median age of the population of the United States for censuses prior to 1880, as the following table will prove.

Date.	Of Total Population.	Of White.	Of Colored.
1900	22.8	23.4	19.7
1890	21.9	22.4	18.3
1880	20.9	21.3	18.0
1870	20.1	20.4	18.5
1860	19.4	19.7	17.6
1850	18.8	19.1	17.3
1840	17.8	17.8	17.3
1830	17.2	17.2	16.9
1820	16.7	16.5	17.1
1810	...	16.0	...
1800	...	16.0	...

This table shows that in the median age of the white population during each decade from 1810 to 1900 there was an increase amounting in the ninety years to 7.4 years, or an average of almost five-sixths of one year in every ten. The median age of the colored population, which includes negroes, Indians and Mongolians, increased after 1830, but not so regularly, it being the same in 1840 and 1850, while the age for 1880 and 1890 was lower than that of 1870, and not much higher than that of 1860. The median age for 1870, however, may have been, and probably was, greatly affected by the serious omissions in the count of the negro population of that year. As will be seen, this median age of the colored population increased 3.0 years in the seventy-year period, that is, from 1830 to 1890, or only about half as fast as the whites. But during the last twenty years of the century the increase for the two groups has been about the same, namely, 1.9 years for the colored and 2.1 for the white. The most marked increase of the latter was in the period of 1840-1850, and was probably due to the advent of a large number of adult immigrants which raised the median age.

The statement concludes as follows: "Many complex influences have cooperated in producing as a resultant this steady change in the age composition of the population. Three may be mentioned. The rapid progress of medical and sanitary science, which has tended to increase the average length of life; the decrease in the relative number of children born, which has made the earlier age periods less preponderant numerically in the total population, and the influx, especially since 1840, of great numbers of adult immigrants, increasing the number in the older age periods. The difference between the white and colored population is doubtless due to the fact that these influences have wrought more powerfully upon the white race than upon the colored."

This report was prepared by the statisticians of the Census Bureau in a most original and careful manner, and it strikes us as both valuable and interesting. At any rate, it is not told "in mournful numbers," nor does it show that "life is but an empty dream."

DIPHTHERIA BACILLI IN THE HEALTHY.

DECIDEDLY a practical and interesting document is the report of the committee appointed by the Massachusetts Association of Boards of Health to investigate the question of the presence of diphtheria bacilli in the throats of well persons, and determine the most suitable course of action to prevent the spread of the disease by such individuals. It is very generally recognized now that many persons in good health carry about in their mouths bacilli that cannot be differentiated by any known bacteriological test from the microorganisms that cause diphtheria. According to the data collected by this committee, at least two in every hundred well persons, not more than ordinarily exposed, thus carry diphtheria bacilli. Of those who have been recently in direct contact with diphtheria patients a much higher proportion—at least one in ten, and at times even one out of every two or three—have the bacilli in their throats. In institutions where diphtheria is epidemic nearly every inmate's throat will give positive cultures.

How serious a danger such a state of affairs presents is readily apparent. Fortunately many of the diphtheria bacilli from the throats of the well are found to be lacking in virulence. It can not, however, be argued that because they have failed to produce the disease in their present hosts they are therefore incapable of producing it in others. The committee state as their conviction that a number of correspondents have reported instances in which it seems very certain that the communication of diphtheria by well persons actually took place. There is no doubt that the diphtheria bacilli, so often to be found in the throats of those who are in immediate contact with diphtheria cases, are usually very virulent. Hence the necessity for special precautions with regard to such persons.

The question of the virulence or non-virulence of diphtheria bacilli found in the mouth-secretions is bound up with the unsolved problem of the existence of forms practically indistinguishable from the Klebs-Löffler bacillus by any bacteriological test at present known, yet incapable of proving pathogenic, at least for human beings. There are many who believe in the existence of a pseudodiphtheria bacillus. Bacilli of this form are ordinarily described as occurring in shorter rods than the true Klebs-Löffler bacillus, and as

taking the stain more solidly, so that there are no irregularly stained bands in them. But so far boards of health have hesitated to accept this teaching as positive enough to justify definite application to sanitary regulations. When bacteriological knowledge on these disputed points shall have become more settled, then something of present uncertainty in the action of sanitary authorities will be eliminated.

Meantime, there remains the great practical question, What is to be done with well persons who carry what are presumed to be virulent diphtheria bacilli in their throats? In regard to this, the committee suggests a compromise in practice, because of the uncertainties of present knowledge and the inconveniences attached to rigid enforcement of segregation. Those who are not in close contact with diphtheria, but who yet seem to carry diphtheria bacilli, may be neglected, since in such cases there is good reason to doubt the virulence of the micro-organisms. For those exposed recently to diphtheria some precautions are necessary. For adults, instruction as to the danger they may inflict upon others seems to be as yet the only sanitary regulation that can be enforced. They should be warned especially of the necessity for the most scrupulous cleanliness, and should not permit children to caress them or even to come in contact with their hands. Especially when such a person has a cough must precautions be taken to prevent the dissemination of the bacilli about living-rooms. This can be done by the use of cloths, which should be immediately burned. Everything that comes into contact with the secretions of an infected person's mouth should be sterilized before being handled by others. The observance of these precautions will so minimize the danger of infection as to make it practically negligible.

With regard to children recently exposed to diphtheria infection and shown to have bacilli in their throats, the case is different. It is impossible to secure in them execution of the precautions suggested; and, besides, children are much more likely than adults to spread infection. They are constantly putting their hands and toys into their mouths; in playing, they touch one another much more frequently, and they continually handle each other's belongings. All this predisposes to the conveyance of contagious material whenever it is present. In a crowded tenement-house, to permit the well children of a family in which diphtheria exists to come in contact with other children is almost inevitably to spread the disease. Ignorant adults who resemble children in their neglect of cleanliness are quite as likely to prove disseminators of the infection. They also must be restrained from harming others.

This report is eminently suggestive of methods whereby, without imposing too much inconvenience on the well members of a family in which diphtheria exists, we may limit to a great extent the spread of the disease. It brings out very forcibly once more the truth that contagion in times of epidemic is not in the air, and is not carried about by winds, but that the means of distribution is almost always some biological factor with regard to which the enforcement of simple precautions may prove of great sanitary service. This coordinate work of the Massachusetts boards of health has so much of promise in it that similar bodies in other states should be stirred to emulation of New England's zeal for the common well-being. The temperate conclusions reached in this case should serve as a model to others. Reasonable efforts to control are much more likely to prove effective than would be any attempt to enforce stringent regulations.

ECHOES AND NEWS.

NEW YORK.

New Hospital for Deaf and Dumb Sick.—Plans have been filed with the Building Bureau for a new three-story hospital to cost $100,000, to be built on the grounds of the New York Institution for the Instruction of Deaf and Dumb at Boulevard Lafayette and 165th Street for the treatment of the deaf and dumb sick. It is to be of brick and steel, 34.8 feet front and 154.5 feet deep, with an extension 28.8x 42.6 feet.

The New York Academy of Medicine.—The Section on General Medicine will hold a Stated Meeting Oct. 21. The order will be a symposium on typhoid fever—a series of short contributions. I. Paper: "The Etiology and Prevention," by Herman M. Biggs, M.D. II. Paper: "The Symptomatology and Clinical Diagnosis," by Chas. E. Nammack, M.D. III. Paper: "Laboratory Aids to the Clinician," by E. E. Smith, M.D. IV. Paper: "The Chemical Nature of the Bacillus Typhosus," by Lewis R. Morris, M.D. V. Paper: "The Treatment," by Hobart A. Hare, M.D., of Philadelphia. VI. Discussion by Drs. Geo. B. Fowler, Leonard Weber, W. H. Thomson, R. Vansantvoord, H. W. Berg, Andrew H. Smith, James Ewing, A. Jacobi, the Chairman and others.

Senior Doctors on Ambulances.—By a new rule which goes into effect this week, the ambulances of Bellevue, Gouverneur, Harlem and Fordham Hospitals will be in charge of senior doctors, instead of juniors who have just graduated from medical schools and who have had no hospital experience. Complaints of inexperience have been made, and these led Dr. Stewart, Superintendent of Bellevue and Allied Hospitals, and Dr. Brannan, Chairman of the Board of Trustees, to bring the matter to the

attention of the trustees. The new rule was the result. As there are on an average 1,000 cases in Bellevue daily, a doctor in the course of six months has a training that it would take years to acquire elsewhere. By putting these experienced doctors on the ambulances it is believed that the service will be greatly strengthened and mistakes and erroneous diagnoses avoided. This step is a wise one, but we may still expect the yellow journals to howl about what they may please to call incompetent ambulance surgeons.

Gov. Odell and the Charities Bill.—According to the Utica Press, "Gov. Odell's greatest mistake, and the one which will return to plague him most in this campaign, was committed when he listened to certain of the Lunacy Commissioners and endorsed the Brackett (judiciary) bill, which raised such a storm of discussion last winter. Believing the representations made to him by those interested in their own rather than the public welfare, he championed a bill that was without merit. Undoubtedly, had he known at the outset what he learned later, his record would have been different. He was at fault in that, having a better appreciation of the situation, he did not withdraw his endorsement. That is the one great blunder of his administration. It is fair to him to say that there is no indication that he has sought by any interference at Utica to profit politically by that unfortunate piece of legislation." With this opinion the MEDICAL NEWS is largely in accord. The whole cheese-paring attitude of the Governor has worked untold discomfort to the dependent classes and to those who have them in charge.

Dr. Peterson's Plans for a Psychopathic Hospital.—Something like 1,500 persons are committed to the Manhattan State Hospital on Wards Island every year, most of them in the first stages of insanity. It is declared that many of these could be treated and benefited if not completely cured in a hospital. According to the State Commission in Lunacy, every patient discharged from a hospital, by recovery or otherwise, means a gain to the State of $550. Dr. Peterson, in describing the workings of such a hospital, says: "The hospital for the acutely insane should be located, just as general hospitals are, in the most populous portion of the city, so as to afford convenient access from every quarter. It should have an outdoor department or dispensary, where mental cases may be seen in the very earliest stages. It should have its staff of internes and its attending or consulting physicians and surgeons, a well-equipped laboratory, an auditorium for teaching, and opportunities should be given for the professors in medical schools in the city to utilize the hospital material for the instruction of students and physicians in the still neglected specialty of psychiatry. Patients should be received for diagnosis as emergency cases without commitment papers, legal forms to be made use of only after a specified time has and when it becomes evident that long detention will be necessary. Such psychopathic hospitals as I describe are now organized in every university town in Germany." The MEDICAL NEWS most thoroughly endorses Dr. Peterson's plans, and hopes to see New York soon equipped with suitable psychopathic hospitals.

The Criminal Insane in New York.—The forty-second annual report of Dr. Henry E. Allison, Medical Superintendent of the Matteawan State Hospital, for the year ended Sept. 30, 1902, has just been issued. Under the present provisions of the State law no male inmates of penal institutions can be admitted who become deranged while serving sentences for felonies. The only male convicts who can now be admitted are those who have been declared insane while undergoing sentences for petty offences. The number of female prisoners in the State is exeremely small, and no change has been made in the custody of those who become insane. All females from penal institutions are received as heretofore, regardless of the nature of their crimes. During the year 14 convicts, whose sentence had expired, but who still were insane, were transferred to other State institutions. On Oct. 1, 1901, there were 752 patients, and 59 were admitted during the year. During 1901 there were 206 discharges or transfers, reducing the number of inmates to 605. One man who escaped was captured. There were 18 deaths at the hospital in the course of the year. Nineteen patients recovered their reason. The ratio of recoveries, based on the average daily population, is nearly three per cent. It is said that recovery among criminal insane, especially court cases, is extremely small. Those criminals adjudged insane are compelled to endure a longer confinement than the average term in penal institutions. All the clothing, with the exception of stockings and hats, is manufactured by the inmates, and the weekly per capita cost of maintenance, based upon the daily average of population, was $3.60.

The City's Health and Clean Streets.—Street Cleaning Commissioner Woodbury asked the Board of Estimate last week to increase his appropriation by $450,266 for 1903, making it $5,603,113; and to back up his request he laid before the board proofs of atmospheric conditions over streets in the different boroughs. These proofs were photographs of the air, showing the comparative volumes of bacterial colonies in selected neighborhoods. In the select district of 68th Street between Park and Madison Avenues, the plates showed only five colonies of bacteria. In the thickly populated tenement-house neighborhood of Stanton Street between Pitt and Ridge streets, there were no fewer than 9,600 colonies on the plate. Both these streets were asphalted and the experiments went to prove that while in the streets where there was little traffic the atmospheric conditions were comparatively pure, in the thoroughfares where traffic was congested and heavy the air was laden with bacteria. The report submitted to Commissioner Woodbury by his experts contains the following conclusions:

"The first point to be noted is that the air for the first foot above the pavement is, as would naturally be supposed, the most dangerous. Secondly, the effect of traffic as a distributor of bacteria should be noted in two ways. The vibrations and disturbances caused by the passage of a slow-moving heavy truck have the effect of loosening the dust and the street dirt in the interstices of the pavement and on the surface. This is more or less true of all traffic but especially so under the conditions mentioned. Light and rapid traffic creates air currents which pick up the dust and dirt and foul of the air. Rapid and heavy traffic such as street cars act both as looseners and distributors of the dirt. This is especially true of electric cars, which hug the surface and make strong currents of air. The surfacing of the streets, therefore, should not only be as clean as possible, but the dust should be so treated as to resist the effort of traffic to disseminate it. Washing the streets would, therefore, appear to be the proper method to overcome the bad effect of traffic."

Commissioner Woodbury says that it is the first time in the history of the Street Cleaning Department of any city that the authorities have resorted

to scientific aid to discover the most effective means of cleaning thoroughfares in which there is a difference of conditions. The results which the experts obtained, he says, will enable him to institute a new system of street cleaning which will thoroughly cope with the differing conditions of the city's thoroughfares. But to carry out this work he needs more money.

The increase in the account of administration is due to increased number of district superintendents, foreman and 133 additional sweepers. When it is explained that the department hauled from the small district bounded by the Bowery, East Houston street, the East River and Broome street, in the months of January, February and March of this last year, 19,289¾ loads of material, and from this same district there is picked up by hand from the streets 16 tons of garbage a day, and that this garbage is not collected from the cans placed in front of the houses, but actually picked from the sidewalk and between curb and curb by the sweepers, it shows the enormous amount of work that must be done in this district. The conditions here are demonstrable by means of the photographs of the air which have been taken by the department, the microscopical study and development of the colonies of bacilli done by Prof. Ewing of Cornell University. These photographs taken at the curb line and at six feet above show very distinctly bacilli of putrefaction. They also overlie in great measure and mass the pathogenic bacteria which undoubtedly are also present. The death-rate in this district has greatly decreased during this year, and by stripping some of the less densely populated parts of the town of sweepers the department has been able to better the conditions, but the presence of these multitudinous colonies of bacteria shows actually what there is at hand.

PHILADELPHIA.

Mausoleum for Dentist.—Plans are under way for the erection in Woodlands Cemetery of what it is claimed will be the finest private mausoleum in the world for the late Dr. Thomas W. Evans, the noted Paris dentist, formerly of this city. No steps have yet been taken in the way of founding the Evans Dental College or museum, for which the residuary estate was bequeathed.

Typhoid Outbreak Among Soldiers.—Typhoid fever has appeared in the camp of the Twelfth Regiment, which is stationed at Shenandoah. More than 30 cases have occurred during the past two weeks. A special session of the Shenandoah Board of Health developed the fact that there were no cases of the disease among the civilians in the borough. An inspection of the camp showed that all sanitary precautions were being observed. The location of the camp will soon be changed.

Opening of Medical Colleges.—On October 1, three medical colleges began their work for the year, the University of Pennsylvania having begun its session the week previous. At Jefferson the introductory lecture was delivered by Dr. Henry C. Chapman, at the Medico-Chirurgical College Dr. F. Savary Pearce gave the principal address. The new dispensary and laboratory building was also formally opened. The 54th session of Hahnemann College was begun with addresses by Dean Pemberton Dudley and Dr. T. L. Chase.

Sanitary League Would Fine Expectorators.—To guard the public from danger of contracting contagious diseases from expectoration upon sidewalks and public conveyances, the Women's Sanitary League of Pennsylvania has presented to Select Council an ordinance prohibiting such an act. Violation of this ordinance subjects the offender to a fine of $5. Prohibitory signs have been posted in street cars and public buildings for some years by the Board of Health, but this is the first move toward exacting a penalty.

German Hospital Superintendent Resigns.—Dr. Carl Frese has resigned as Medical Superintendent of the German hospital, a position he has held during the last 14 years. Dr. Frese accomplished much in improving the service of the hospital. He organized there a medical society for resident and ex-resident physicians, which met weekly and discussed a paper prepared by one of them. Dr. Frese had charge of the first hospital train sent from Pennsylvania during the Spanish-American War. Dr. Henry Page is Acting Superintendent at present.

Percentage of Cures Among the Insane Increasing.—The annual report of the State Hospital for the Insane at Norristown shows a gratifying increase in the percentage of recoveries. The mortality for the year just ended also shows a considerable decrease. The percentage of recoveries among the 176 male patients admitted during the year ended Sept. 30, 1902, was 37.5, as against 16.5 for the previous year. The percentage of recoveries among the total number of male patients 1,272, was 5.2, as against 3.4 in 1901. Deaths were 24 less than last year. The female department also showed better results than during the preceding year.

Hospital Buildings Unheated.—The new children's hospital and the building for skin and venereal diseases at almshouse are nearing completion, but neither these nor the maternity hospital, which was completed a month ago, can be used because of the lack of heating facilities. It is said that when the plans for the buildings were prepared no provision for heating apparatus was made. Who the responsible party was cannot be said, though rumor blames a former official of the institution. It is a fair sample of political instead of business management. Application for $25,000 will be made in order to complete the buildings, which are badly needed.

Clinics for Poor Consumptives.—The Free Hospital for Poor Consumptives proposes to establish throughout the city several clinics for the treatment of poor consumptives who, by reason of their employment, are unable to devote the time required for their treatment in a home or hospital. The hospital will also distribute throughout the city, particularly in the slum districts, pamphlets defining the cause of the disease and explaining the methods of precaution to be observed against its spread. Efforts will be made to carry these movements into other towns of the State. An important aid in the State campaign against tuberculosis is the gift of a house that stands near the summit of the mountain at Kane. This was donated by Mrs. T. L. Kane, and is to be used by the summit hospital of that place for the care of consumptives.

Satisfactory Results of Filtration.—Since the Lower Roxborough slow sand filtration plant has been in use, daily analyses of the water have been made with results, according to the report of Chief Engineer Hill, most satisfactory. In addition to rendering the water perfectly clear, the bacteriological tests show that the number of bacteria has been reduced to from 26 to 35 per c.c. This, Chief Hill claims, is the greatest elimination of germs ever accomplished, and the plant here will set a new standard for supplying pure water to a large community. A display of water in large jars has been

made in the lower corridors of the City Hall since the first test-filter was established in this city. That from the test plant has been substituted by water now being furnished to Germantown. The remarkable clearness of the samples is a revelation to downtown people who are still being supplied with liquid mud.

CHICAGO.

The Typhoid Fever Situation in Chicago.—Dr. Arthur R. Reynolds, Health Commissioner of Chicago, read a paper on this subject. He said that the one supreme measure necessary to prevent recurrences of epidemics of this disease is the protection of the water-supply from sewage pollution.

Sanitary Quality of City Water-Supply.—The practical point with reference to the sanitary quality of the city water-supply is that low lake-levels cause increased pollution; high lake-levels improve the sanitary quality, and neither the one nor the other will be perceptibly affected by "the abstraction of from 300,000 to 600,000 cubic feet per minute" through the drainage canal. In fact, the abstraction of doublt the maximum quantity would not be seriously felt, and it is to be hoped in the sanitary interest, not only of Chicago, but of all points between Chicago and New Orleans, that this flow will some day be secured.

Presbyterian Hospital to Change Its Methods in the Administration of Drugs.—Mr. W. A. Shaw, attorney for the State Board of Health and State Board of Pharmacy, recently made an investigation of the alleged lax methods of administering drugs to patients at the Presbyterian Hospital, with the result that a new system in this particular will be adopted by the institution. The Superintendent of the Hospital promised Attorney Shaw that a registered pharmacist would in the future prepare all the medicines for the hospital, and that no one but physicians in charge would be allowed to prescribe medicines. It is expected that the methods of other hospitals will be likewise investigated.

Improvement of the Milk-Supply.—While the laboratory investigations have been unable to demonstrate typhoid-infected milk during the present epidemic, the presence of the typhocolon group has been repeatedly detected. Although special search has been frequently made for the typhoid bacillus in the city milk during the last eight years, it has been found in only three instances, and those in local epidemics, where the relation of cases of the disease and a common milk-supply was clearly established. This led in one instance to the confiscation of all milk from an infected dairy in a neighboring State, and its destruction at the State-line, and to equally effective measures in the two other cases of infected dairies in Cook County.

Typhoid Fever.—At a recent meeting of the Physicians' Club this subject was discussed. Professor John H. Long showed on a map the sections in which the disease is prevalent the greater portion of the year in Chicago. He told of the fever that is raging in the Ghetto, and said that conditions differed there from other sections. All the bulletins and newspapers in the city would not bear the residents of the district the news that the water is bad, so they must be reached some other way. He believed the spread of the disease could be limited even in the Ghetto if people would take pains to keep their houses and themselves clean, and the city would spend a few dollars in cleansing the streets and sidewalks. Dr. Adolph Gehrmann told of the experiences the Department of Health undergoes in its efforts to discover the conditions which foster and spread disease. He was positive of the cause of the present typhoid fever epidemic, attributing it almost entirely to the condition of the water.

The Murphy Button.—According to the "Chicago Clinic," a Chicago newspaper man was asked to speak at a recent banquet over which Dr. John B. Murphy presided as toast-master. "It was suggested to me," he said, "that it might be a delicate compliment to the toast-master for me to wear a Murphy button on this occasion. I went up and down State street to all the department stores searching for one. I found college buttons, fraternal buttons, G. A. R. buttons, but no Murphy buttons. Meeting a physician, I asked him what a Murphy button might be. He told me that the Murphy button was worn in the abdomen—on the inside. Then he rattled off a lot of stuff that was Greek to me. I caught the idea, however, and I have worn one in honor of the toast-master. I take it that the Murphy button is the refined name for what we used to call the 'belly-button.'"

Etiology of Typhoid Fever.—Dr. Wm. K. Jaques read a paper on this subject before the Chicago Medical Society. A discussion of the characteristics of the bacillus typhosus is not profitable because general practitioners are not aware of difficulties of the study. A constant stream of pathogenic germs is passing through the intestinal tract. To prevent the invasion of these into the tissues there must be present the destructive fluids and resisting powers of the intestinal cells. The greater the virulence of the germ, the greater must be the resistance to prevent invasion. The transmission of the typhoid bacillus from the intestinal or urinary tract of the diseased into the alimentary tract of a susceptible individual is necessary to produce typhoid fever. The key to typhoid sanitation is the prevention of the contamination of food and water by human dejecta. The more dense the city's population, the more perfect should be the sewage disposal.

Typhoid Bacilli in the Blood.—Drs. E. K. Kerr and F. G. Harris read a joint paper on this subject, and gave a preliminary report of 56 cases. The situation was reviewed from the time of the discovery of the bacillus to the present. It was shown that early investigation had failed to demonstrate the bacillus in the blood except in exceptional cases. Later students using large amounts of blood and culture material have demonstrated the bacilli in a large proportion of the cases examined. Thus Cole found them in 11 out of 15 cases, and Hewlett in 20 out of 24 cases. The technic was given in detail. About five c.c. of blood is drawn from a vein under aseptic precautions by means of a syringe and distributed among five Erlenmeyer flasks, each containing from 100 to 150 c.c. of bouillon. These are incubated from two to six days. Turbidity indicates a growth, and an agar slant is made. If a smear shows the presence of a motile bacillus, a bouillon tube is inoculated and the test for agglutination with known typhoid blood applied. A dilution of 1:50 was used and an hour allowed for agglutination and loss of motility. In the author's list of 56 cases, 31 were positive, and 25 negative. Identification was by agglutination only, although later the usual cultural tests will be applied. In a series of 102 cases, with 118 examinations compiled from recent writers, the bacilli were found in the first week in 87½ per cent. of the cases; second, 70 per cent.; third, 50 per cent., and later 25 per cent. In the six relapses examined, they were found in every case. The general average is 70 per cent. Cultures were positive before the Widal test was obtained in 37 per cent. of 81 cases

when this relation was reported. It was shown that the bacilli are comparatively few, there being often only one or two of five flasks affected. The practical application lies in the easy method of isolating the bacillus, and in the diagnostic aid thus offered, which is shown to be sure, early in appearance and fairly easy, at least in hospital cases.

State of the City's Health.—Only 22 typhoid fever deaths were reported during the week—the fewest in any week since that ended Aug. 2. In that week 16 such deaths were reported—a sudden increase from a weekly average of eight during the month of July. For the successive weeks following that of Aug. 2, the reported deaths were 28, 45, 53, 51, 55, 43, 38, 28 and 22 respectively. The figures sustain the statement made in the bulletin for the week ended Sept. 13: "At the close of the week there were gratifying indications that the typhoid fever epidemic was abating." Nevertheless, the health department is still apprehensive of the results which are pretty certain to follow the continuous pollution of the public water-supply, unless the precautions against typhoid, which have been very generally observed, be s till maintained. Chief of these is, of course, the sterilization of all hydrant water to be used for drinking purposes. The pasteurizing of milk and cream is not of so much importance now as it was two months ago, when the leaflet concerning the prevention of typhoid was first issued. The milk-supply was never better than it has been for the past month. The week's examinations show only 3.5 per cent. of the samples below the ordinance standard. Watering and the use of formalin as a preservative have become "lost arts." The summary sewer disposal of milk thus adulterated has taught all concerned that the practice is not profitable. The most marked improvement has been in the quality of restaurant milk and cream. When the increase of typhoid compelled the department to resort to drastic measures, restaurant samples averaged 17 per cent. of watered or formaldehyded. Last week every sample taken from a restaurant or hotel was sound, whole milk or cream, fully up to or above the ordinance standard.

During the week the laboratory has received an increase of requests for cultures of which a majority have been diphtheria. Physicians report that the diphtheria is of the malignant, lymphatic type, the child often not complaining at all of a sore throat, and first culture frequently failing to reveal the typical diphtheria bacillus. Physicians should be on their guard against this form of the disease. While the laboratory has not received as many specimens for examination of suspected typhoid as in previous weeks, it is largely due to the fact that the internes at the hospitals have been instructed in the making of this test, and do the work themselves. There is still much typhoid in the city, especially in good residence districts.

The total of deaths reported, 471, is 25 more than for the previous week and 52 more than for the corresponding week last year. The increase is due chiefly to the effects of the unfavorable weather upon chronic invalids; the deaths of those over sixty years of age are nearly 10 per cent. greater than the week before and one-third greater than a year ago. Deaths from violence also account, in part, for the increase—44 during the week, 29 the week before and 32 in the first week of last October.

CANADA.

Appointments.—Dr. W. H. Cullen, a recent graduate of McGill University, has been appointed clinical assistant in the Manhattan State Hospital, Wards Island, New York. Dr. L. W. May has been appointed resident physician of the new civic hospital for infectious diseases, Ottawa, Ont. He is a recent graduate of McGill.

Montreal General Hospital.—The September report of the Montreal General Hospital shows that there were 236 patients admitted into the wards of the hospital during that month; 214 were discharged and there were 17 deaths. The outdoor consultations were 2,664.

Toronto Medical Reopens.—The opening lecture of the Medical Faculty of Toronto University was delivered on the night of October 2, by Dr. J. J. McKenzie, Professor of Pathology. His lecture dealt with the life and work of Virchow. A freshmen class of average number has registered.

Trinity Medical Reopens.—Trinity Medical College, Toronto, opened for the winter session on the afternoon of Sept. 24. Dr. George Bingham, Professor of Applied Anatomy, delivered the opening lecture, which dealt largely with drawing a parallel and deductions therefrom between the careers of the eminent scientist, Sir James Simpson, and a London quack, who was very successful from a commercial standpoint, and who was contemporaneous with Simpson.

Executive Health Officers of Ontario.—The 17th annual meeting of this association was held September 9 and 10 at Berlin, Ont. Dr. Kitchen of St. George was the presiding officer, and delivered the annual Presidential Address. Among other matters discussed were a special report on vaccination; the bearing of the complications of bovine vaccination upon its unqualified acceptance by the profession and public; control of smallpox outbreaks in cities, and control of outbreaks of diphtheria. The following were the officers elected for the ensuing year: President, Mr. Thomas MacFarland, Chief Analyst for the Dominion Government, Ottawa; Vice-President, Dr. G. H. Bowlby, Berlin, Ont.; Secretary-Treasurer, Dr. P. H. Bryce, Toronto.

Semiannual Meeting of Quebec Medical Board.—The semiannual meeting of the Provincial Medical Board was held at Quebec on September 25. One of the most important items in connection with the meeting was the introduction of a resolution asking the Legislature of Quebec to pass the necessary legislation to enable the Federal Government to deal with Dr. Roddick's Bill for a Dominion Medical Council. This resolution was rejected on division by a vote of 21 to 11. This means that the necessary legislation will have to be asked for in the face of this adverse vote, and that Quebec, which jealously guards any seeming encroachment on its provincial rights, will probably be the instrument of overthrowing Dr. Roddick's efforts for the cause of the unification of the profession throughout the Dominion.

Smuggling Diseased Immigrants into the United States.—The whole question of Montreal becoming a dumping-ground for diseased immigrants, owing to the United States having an immigration officer in that city, has been revived through the charge that diseased immigrants were being smuggled across the line into the United States. The new Canadian law provides that "Immigrants bound for the United States, who enter at Canadian ports, must be properly examined under that law." Mr. Robert Watchorn, the American official at Montreal, states: "We have deported more people in the three weeks since the law went into effect than in any three months prior to that." The sooner the Canadian

Government provides for the medical examination of all immigrants arriving at Canadian ports, the better Montreal people will be pleased. The Ottawa authorities state they know nothing of associations in Canadian cities for the smuggling of diseased immigrants and Chinese into American territory.

New Regulations of Study by Quebec Medical Board.—The recent action of the Quebec Medical Board in passing a resolution to the effect that in future the privilege of medical students presenting themselves for preliminary examination will be confined to those who have taken what is known as the "cours classique complet" has excited no end of discussion and criticism in medical circles in Montreal and other places in the Province of Quebec. This would be a bar to English students, as the above course is in use alone in the French universities. The passing of the resolution does not, of course, make it law, the idea being to have the whole Medical Act of Quebec revised, the English universities to adopt a standard equivalent to the above course of study. In McGill circles the resolution is looked upon with much disfavor, and an effort will be made to have it rescinded at the next semiannual meeting of the board. The promoters of the resolution are said to have had it adopted with a view to prevent the working of Dr. Roddick's Medical Registration Bill.

McGill University Faculty Appointments.—Lectures in the faculties of McGill University are again in full swing, and will be continued without cessation until the Christmas holidays. The list of freshmen in medicine is larger than ever this year, and includes students from the British Isles, Bermuda, the West Indies, the Southern, Eastern, and Northern States, and the various provinces and territories in Canada. Dr. Von Eberts has been appointed registrar of the medical faculty, in succession to Dr. Ruttan, who takes the chair of chemistry. The chair of hygiene in the faculty of medicine, which was rendered vacant some months ago by the death of Dr. Wyatt Johnston, has not yet been filled. The position was offered to Dr. Hanken, bacteriologist in the employ of the Indian Government, but he has had inducements extended which have decided him to remain in his present position in India. The faculty have, however, three men in view for the position, viz., Dr. Balfour of Edinburgh, Dr. Abbott of Philadelphia, and Dr. Westbrook of Minneapolis. All three are eminent bacteriologists and prominent physicians, and all have attained enviable positions in medicine and pathology.

GENERAL.

Cholera Still in Egypt.—On Oct. 2, there were 254 fresh cases of cholera reported in Egypt, and 241 deaths from that disease. The totals since the outbreak on July 15 are 36,658 cases and 30,688 deaths.

Medico-Legal Bulletin.—The first number of this new journal has just appeared from the Physicians' Defense Company of Fort Wayne, Indiana. It promises to be a bright, up-to-date and useful periodical.

Smallpox in Barbados.—The outbreak of smallpox in Barbados continues to spread, and the attempt to isolate the victims of the disease has on several occasions led to riots. The type of the disease is very mild, and the proportion of fatal cases has been extraordinarily low.

Hospital for Convalescents in Minnesota.—A deed was filed for record at Marshall, Minn., last week by which John M. Burke conveys to the Winifred Masterson Burke Relief Foundation $4,000,000 worth of real and personal property, to be used as an endowment for a hospital for convalescents.

Insanity in the Army and Navy.—A French investigator has recently come to the conclusion that the brains of military men give out most quickly. He states that out of every 100,000 men of the army or naval profession, 199 are hopeless lunatics. Of the liberal professions, artists are the first to succumb to the brain-strain, next the lawyers, followed at some distance by doctors, clergy, literary men, and civil servants. Striking an average of this group, 177 go mad to each 100,000.

Work of Lying-in Hospital.—In the month of September the new Lying-in Hospital, at 17th and 18th streets and Second Avenue, had 457 applicants for treatment, of whom 151 were admitted and cared for in the hospital wards. The number of children born in the hospital during August was 108. For the same period in the Outdoor Department there were 280 applicants for assistance in their own homes, and 248 patients were treated in confinement; 1,166 medical visits were made, and 841 visits to assist and aid, 251 patients being helped by trained nurses and a woman to perform various household duties. Through the diet kitchen, tea, coffee, sugar, bread, milk, and oatmeal have been distributed to deserving cases, and 1,191 garments given away.

Virchow and His Students.—The late Professor Virchow had a sense of humor and appreciated that quality in others. One day, while he was lecturing, he noticed that one of the students, instead of listening and taking notes, was staring vacantly out of the window at a tree. "Young man," said the professor, "let me call your attention to the fact that we are studying pathology here, not botany." On another occasion the joke was on the professor. He was angry because a student could not name the exact color of a preparation he showed him. Finally, he asked sarcastically: "What would you say was the color of my coat?" The coat had seen better days, and the student replied promptly: "It seems to have been blue." Virchow laughed loudly at this hit, and, after asking a few more easy questions, let the student pass.

Bacteria in Low Temperatures.—According to the Evening Post, the researches of Prof. Dewar at the Royal Institution of London on low temperatures show that all bacteria are not destroyed, even at the lowest. Certain species live when subjected for days together to temperature as low as = 310 degrees F. The phosphorescent organisms cease to be luminous at the temperature of liquid air, but the chemical reactions producing the phosphorescence are only suspended, for the luminosity recurs when the temperature is raised. It cannot longer be assumed, then, that the temperature of space is sufficient to destroy all life, and it is not absurd to suppose that life can be transferred from one planet to another. If the bacteria will only choose cold meteorites they have a chance for life. But they must avoid the red-hot surfaces of such celestial carriers.

Suspected Cases of Yellow Fever in Spain.—A report from Madrid states that a number of cases of a contagious disease, suspected of being yellow fever, have occurred at Pazos Barben, which is in the province of Pontevedra, in the northwestern part of Spain. The report is of a very indefinite nature, but is interesting in relation to the subject of yellow fever in Europe. The bulletins of the yellow-fever institute (Public Health and Marine-Hospital Service), giving the history of yellow fever in Europe,

recount that the latest recorded occurrence of yellow fever in Spain was in 1878, when the disease invaded the capital of Madrid and attacked 50 persons, of whom 30 died. All the victims on that occasion were soldiers from Havana, who were disembarked at Santander and transported by rail to Madrid. Apart from cases at quarantine stations, the latest appearance of yellow fever in Europe was in 1894, when two seamen died from the disease in a hospital in Trieste, Austria. These seamen were landed at Genoa from the Italian steamship Colombo and went at once to Trieste. The Colombo hailed from Brazil and had yellow fever on board during the passage.

Changes in the Medical Corps of the Navy.—Sept. 26, Passed Assistant Surgeon F. E. McCullough, detached from the naval hospital, Mare Island, Cal., and ordered to the Alert.—Passed Assistant Surgeon J. C. Pryor, detached from the Massachusetts and ordered to the Bancroft.

Sept. 29, Passed Assistant Surgeon J. F. Leys, detached from the naval hospital, Newport, R. I., and ordered to the Supply.—Passed Assistant Surgeon F. C. Cook, detached from the Supply and ordered to the naval hospital, Newport, R. I.—Passed Assistant Surgeon E. V. Armstrong, placed on the retired list Sept. 27, 1902.—The following-named officers were detached from the Solace ordered home and to wait orders. Passed Assistant Surgeon A. R. Alfred, Passed Assistant Surgeon C. P. Bagg, Passed Assistant Surgeon M. K. Johnson, and Assistant Surgeon H. E. Odell.

Oct. 2, Surgeon H. L. Law, retired, ordered to the naval recruiting rendezvous, Boston, Mass. Acting Assisting Surgeon J. H. Holloway, appointed Assistant Surgeon Sept. 27, 1902, with rank of lieutenant (junior grade).

Marriages of Eminent Men.—Prof. Thorndike of Columbia University, has selected a certain group of men whose brief biographies are given in "Who's Who in America," for 1902, and has investigated the statistics with reference to the question: Do eminent men marry later than their less gifted fellows? The answer is: There is no marked difference. The statistics show that of a group of 286 eminent men aged 60-70 years, 88 per cent. are married; 347 eminent men aged 50-60 years, 88 per cent. are married; 342 eminent men aged 40-50 years, 88 per cent. are married; 243 eminent men aged 30-40 years, 85 per cent. are married.

The corresponding percentages for the whole country are 93, 92, 89, 85. Taking the group of eminent men who are over 44 years of age and who married before the age of 45, it appears that about 22 per cent. married before the age of 25; about 43 per cent. married between 25 and 30; about 19 per cent. married between 30 and 35; about 16 per cent. married between 35 and 45.

The corresponding percentages for the whole country are, approximately, 23, 41, 23, 13.

Prof. Thorndike remarks that these facts bear witness to the fundamental conservatism of human nature. The casual observer is impressed by the appearance of changes—of revolutions and reformations in human ways; he fancies that some force in the environment is making or marring our customs. But the inborn make-up of men is always a factor and one that remains unaltered through many centuries.

The Leper Home in Dutch Guiana.—The following letter to the New York Sun is worthy of a reading by the medical profession, that they may vouch for the enterprise here outlined: "Among the charitable institutions of this hemisphere none will appeal to the sympathies of humanity more than Bethesda House of Mercy, the leper home at Groote Chatillon, Surinam, Dutch Guiana. A committee of Christian gentlemen of that colony have from year to year liberally supported it so that all expenses have been paid by them and friends in Holland, England and Germany. The superintendent of the same, the Rev. Henry T. Weiss, and wife have arrived in this country in order to gather funds for additional buildings such as a surgery, a hospital, a chapel and bathrooms. May they not have come in vain! It cannot for a moment be imagined. Our Consul at Paramaribo, the capital of Surinam, the Hon. Arthur Deyo, is well acquainted with them and the good work they are doing among the lepers. On the eve of their departure he handed them an open letter. It reads as follows:

'The Rev. Mr. Weiss and wife visit the United States with a view of interesting all good people in their work, and also to solicit financial aid to further the purposes of alleviating the sufferings of the lepers under their charge. They are making a noble sacrifice in their efforts for these poor lepers. I commend them to the peole of the United States. I feel confident that they will gladly contribute most generously to enable Mr. Weiss to enlarge and continue the good work of relieving the sufferings of those afflicted with this dreadful sickness.'

In order to show how important this leper asylum is, it need but be stated that there are some three thousand lepers, half of them coolies, in Surinam. Every dollar now contributed will be used for the much-needed buildings. Friends in Holland bear all Mr. and Mrs. Weiss's expenses. Money is needed only for more buildings. Contributions will now be most gratefully acknowledged by the Rev. Henry T. Weiss, 12 Church street, Bethlehem, Pa."

Women Inspectors and the Tenement-House Commission.—Ten women began work as tenement-house inspectors last week, according to the Evening Post. When, last spring, the Tenement-house Commission announced a civil-service examination for sanitary officers, a large number of women responded. The authorities were somewhat taken aback at this unprecedented occurrence, and offered to give the women a special examination at some future time. Nearly all accepted the special examination, but a few persisted and stood the test with the men. Out of the whole number who were examined, ten qualified and were appointed. At least six of these women are college graduates, and they assume these positions on salaries of $1,200 a year. Many of them are quite capable of earning twice the salary in other fields. Miss Mary B. Sayles, for instance, is a graduate of Smith, a successful teacher, and has made independent investigations of tenement-house conditions for the College Settlement Associations of Jersey City, and the Brooklyn Bureau of Charities. Dr. Gertrude Light has a degree from the University of Wisconsin, and was one of the first women to be graduated from the Medical College of John Hopkins University. Dr. Light conducts children's clinics at Bellevue. Miss Emily Dinwiddie is a graduate of the University of Virginia, and has been a teacher. At present she is a special agent of the Charity Organization Society, and was commissioned to compile its Directory of Charities. Vassar College is represented by Miss Helen D. Thompson, who will give up the position of sanitary inspector of the Civic Sanitary Association of the Oranges to become a tenement-house inspector. Dr. Margaret Brewster is a graduate of

the New York Infirmary for Women and Children, and of the Medical School of Cornell University. She is assistant physician in the out-door department of the Presbyterian Hospital. Miss Jeannette is a graduate of Barnard College. Miss Mildred B. Fairchild is a Normal School graduate and a teacher. Miss Christine L. Kuntz received her training in the New York School of Philanthropy.

The Army and the Canteen.—The following editorial in the New York Times outlines so well the standpoint taken by the majority of medical men that we here reprint it in full. It is an important statement, especially since lying behind the whole question of intemperance in the army is that dread specter, venereal disease.

"The Army and Navy Journal has summarized the reports of the commanding officers of several military departments in the United States for the year ending with June 30. Civilians will turn with special interest to what the commanding Generals have to say about the operation of the anti-canteen law. This law was passed in opposition to the great weight of expert opinion at the instigation of people profoundly ignorant of the subject and is keenly resented by a great majority of officers serving with troops.

"Gen. Funston is more emphatic than any of the other commanding officers on this subject. He assigns 'the deplorable increase of offenses in general and of desertion in particular' chiefly to two causes, one, the chafing of soldiers just returned from field service at the restrictions of garrison life and the other the abolition of the canteen. 'Since this action was taken,' says the commander of the Department of Colorado, 'saloons of the lowest type have been established just outside the boundaries of the various reservations. * * * There can be no reasonable doubt that most of the trials by general court-martial and summary courts, at least so far as this department is concerned, are directly traceable to this cause. Since I have had command here there have taken place the ruin and degradation of several non-commissioned officers of long service and fine record.'

"Gen. Randall of the Department of Columbia reports: 'There was a considerable increase over the preceding year in the ratio of trials by court-martial to the average of enlisted strength. This is believed to be due in part to the large number of recruits, but in part also to the abolition of the sale of beer at post exchanges.'

"It is true that the Inspector General of the Department of Dakota does not share these opinions and reports that he is 'inclined to the opinion that the abolition of the beer feature in post exchanges has not materially increased the number of trials by courts.' But of the consensus of army opinion in favor of the restoration of the canteen, as an aid to military discipline and efficiency, there can be no question at all. And it is very greatly to be wished that those who know nothing about the matter would consent to have it settled by those who do know something about it."

A Promise to Pay for Physician's Services by Third Party Not Enforceable by Law Without Written Contract.—According to the Medico-Legal Bulletin, physicians and surgeons are frequently called by a third party to attend a sick or injured person and the question often arises as to whom he shall look for his compensation. The third party may be a responsible party, while the patient may be worthless, and the fact that the third party called the doctor may have induced him to answer the call and treat the patient. Whether or no the third party acted as the employer or as agent only of the patient will depend, of course, upon the circumstances of each case—what was said by the third party at the time the transaction took place or during the treatment of the patient. This is particularly so in cases of injury to employees of corporations. The employer very frequently calls in a physician to look after an injured employee, but in the absence of any definite understanding between the corporation and the doctor no liability should be incurred by the corporation by the mere calling of him to attend the employee. Some one must call him if the employee cannot, and if the corporation recognizes the necessity and calls the physician, it ought not to be held responsible for the services. The physician and surgeon is then left to look to the patient for his fees, unless he contracts with the corporation to perform the services. In such a case, however, the physician will want to make an express contract with the company that he is to perform the services and look to it for his compensation. A physician is liable to render what may amount to gratuitous services at any time to irresponsible men unless he can make some such specific contract with a responsible third party as that just referred to. An individual may promise to be responsible for the expense of the treatment of a certain patient, and it then becomes important for the physician to know what the agreement is and how far he is protected by it, and whether or not it should be in writing. Many times the wording of the agreement will prevent a recovery, while if the physician had been a little more careful there would have been no trouble.

The Statute of Frauds, which is an English statute and has been adopted in part in almost every State in the Union, provides among other things "that no action shall be brought whereby to charge the defendant upon any special promise to answer for the debt, default or miscarriage of another person, unless the agreement upon which such action shall be brought, or some memorandum or note thereof, shall be in writing, and signed by the party to be charged therewith or some other person thereunto by him lawfully authorized." This means that unless an agreement to pay the debt of another is put in writing and signed by the party who is to pay the debt or his authorized agent, said party is not bound to pay the debt should he be called upon. It is then of importance to know whether or not the promise by the third person, if it is not put in writing, is within the statute so that it can be enforced. The language used in the verbal promise is controlling. If a patient should come into a physician's office accompanied by a third party, and ask for treatment, and the third party to gain him credit should promise the physician, "If he does not pay you, I will," this is a collateral understanding and void without writing by the statute. Should he say, "Give him the treatment, I will be your paymaster," or "I will see you paid," this is an understanding as for himself and he will be to all intents and purposes the patient, and no contract in writing is necessary. The promise must be collateral to the transaction to make a written memorandum thereof necessary and if the promisor makes himself primarily liable by his promise it is not within the statute and need not be in writing. This question of what is and what is not within the statute is, owing to its dependency on the facts in each particular case, one of much uncertainty, and one on which there is a great variety of decisions. One court has held the same expression not to be within the statute. This

is true as to the expression quoted above. "I will see you paid," which has been held by the Supreme Court of Michigan to be an undertaking by the promisor and not within the statute, while the Supreme Court of Nebraska has held that the same undertaking is collateral to the employment and is therefore within the statute. Various other illustrations are to be found in the body, which all go to show how uncertain it is to leave it to the courts to decide whether or not the contract should have been in writing.

There, of course, must be a consideration before any such agreement between a physician and a third party can have any effect, but this consideration need not be stated in the agreement. It is left to be shown when the contract is sought to be proven.

Summing the whole matter up, a physician, who desires to hold a third party responsible for his fees for services which he performs for another party, must put the promise in writing and have it signed by the third party and not run the risk of a court deciding that a verbal undertaking by the party is within the statute and preventing a recovery of his fees, because the promise is not in writing.

The International Medical Congress.—The official programme of the Fourteenth International Medical Congress, which is to be held at Madrid, April 23 to April 30, 1903, under the patronage of their Majesties King Alfonso XIII and the Queen Mother, has recently been issued.

Sections.

The work of the Congress will be divided among sixteen sections.

In the Section of Anatomy (including Anthropology, Comparative Anatomy, Embryology, Descriptive Anatomy, Normal Histology and Teratology), which will be presided over by Professor Santiago Ramon y Cajal, the following subjects are proposed for discussion: (1) What is the best method of didactic exposition of the nervous system? (2) the positive value of anatomical measurements for the racial identification of individuals; (3) the structure of nerve cells; (4) the origin of fibroblasts in connective new formations, normal and pathological.

In the Section of Physiology (President, Dr. Gabriel de la Puerta y Rodenas), among the subjects set down for discussion are the physiological action of saccharin, and the influence of glandular poisons on muscular contraction.

In the Section of General Pathology (President, Dr. Amalio Gimeno y Cabanas) Dr. Marchiafava, of Rome, will introduce a discussion on parasitism in neoplasms; there will also be discussions on the genesis of sarcomata; blastomycetic lesions; the desirability of a revision of the classification and description of known bacteria; and vaccinations with cultural and chemical liquids.

The Section of Therapeutics (President, Dr. Benito Hernando y Espinosa) will discuss the relations between the chemical composition of medicaments and their physiological action; the dangers of the so-called intensive medication in chronic diseases and chiefly in tuberculosis; the utility and dangers of intraspinal injections of cocaine in medicine and in surgery; the mechanism of the physiological and therapeutic action of hypnotics and narcotics; intravenous therapy; the treatment of tetanus by Baccelli's method; the therapeutic valuation of antitoxic serums; hypodermic injections, their pharmaceutical significance and the desirability of preparing a pharmacopœia unifying the procedures for making and preserving these preparations.

In the Section of Pathology (President, Dr. José Calvo y Martin) there will be discussions on the etiology and prophylaxis of malaria; the application to clinical medicine of the new researches on the physical and chemical properties of blood serum and diet in typhoid fever.

The Section of Nervous Diseases (President, Dr. José Maria Esquerdo y Zaragoza) will give special attention to toxic and infectious insanities; the delimitation of the pathological nature of crime, and the intervention of psychological medicine in the reforming treatment of criminals.

The Section of Children's Diseases (President, Dr. Francisco Criado y Aguilar) will discuss the therapeutic value of serumtherapy in diphtheria; the treatment of clubfoot; the treatment of tuberculous disease of joints; infant feeding; acute non-tuberculous meningitis; infantile rheumatism and its relations with heart disease and chorea; alcoholism in children.

In the Section of Dermatology and Syphilis (President, Dr. Manuel Sanz e Bombin) the following subjects will be discussed: Blennorrhagia from the medicosocial standpoint; parasyphilitic diseases; retrospective diagnosis of syphilis; treatment of pruritus.

In the Section of General Surgery the subjects proposed for discussion are deaths following operation and indication for surgical intervention in diseases of the stomach. In the Subsection of Neurology there will be discussions on the remote results of surgical intervention in malignant tumors of the kidney and on the comparative value of the means at our disposal for the appreciation of the functional condition of the kidney.

In the Section of Ophthalmology (President, Dr. Santiago de los Albitos) there will be discussions on the surgical treatment of affection of the lachrymal passages; the necessity of unification of optometric scales; optic neuritis in the course of acute affections, and the action of medicaments on the pupil accommodation and intra-ocular tension.

The Section of Oto-Rhino-Laryngology will discuss the causes of deaf-mutism; cholesteatoma and the after-treatment of operative procedures on the ear, and its surgical intervention in every kind of laryngeal cancer and in all its phases desirable from the medicosocial point of view? the local treatment of laryngeal tuberculosis.

In the Section of Obstetrics and Gynecology (President, Dr. Eugenio Gutierrez Gonzalez) there will be discussions on the indications for hysterectomy in acute puerperal infections; the treatment of placenta previa; pathogeny and treatment of chronic cellular and peritoneal inflammations of the pelvis; indications and results of opotherapy in gynecology; the conservative surgery of lesions of the adnexa; the early diagnosis of ectopic pregnancy; the treatment of urethrovaginal fistulæ; induced abortion and premature confinement in its relations with natural law, theology, medicine, and the penal law.

The Section of Military Naval Medicine and Hygiene (President, Dr. Antonio Serrano y Borrego) will discuss the tuberculosis problem in armies; the advantages and disadvantages of compressed medicaments in campaigns; military life and affections of the nervous system, particularly insanity; the prophylaxis of syphilitic and venereal diseases in armies; the hygienic problems of feeding in besieged places.

In the Section of Hygiene and Epidemiology (President, Dr. Felix Guzman y Andres) there will

be discussions on the prophylactic value of disinfection and the methods generally followed; the means of preventing the spread of dysentery; the desirability of establishing sanitary custom houses on the land frontiers of countries; the utility of antituberculous dispensaries as means of increasing vital resistance in the poorer classes.

The Section of Forensic Medicine and Toxicology (President, Dr. Adriano Alonso Martinez) will discuss the capacity and responsibility of degenerates and the localization of poisons.

General Addresses.—The following addresses will be given at general meetings of the Congress: Professor S. Laache, of Christiania, on reciprocity in pathology; Mr. Arthur Thomson, of Oxford (subject to be announced); Professor Ivan Petrovitch Pavlov, of St. Petersburg (subject to be announced); Professor Wilhelm Waldeyer, of Berlin, the present state of phylogenetic theories and Darwinism; Professor Eduardo Maragliano, of Genoa, the struggle of the organism against tuberculosis; Dr. Emilio R. Coni, of Buenos Ayres, public medicine in South America; Dr. Juan José Fernandez, of Havana, diseases of the eyes in a tropical country; Professor Brouardel, of Paris, adulterations of food: their influence on the development of some diseases; Professor A. Politzer, of Vienna, the necessity of the official teaching of otology; Dr. Howard A. Kelly, of Baltimore, urinary infection; Professor Rodriguez Carracido, of Madrid, pharmacological complexity in medical prescriptions; Professor Santiago Ramon y Cajal (subject to be announced later); Dr. Rafael Rodriguez Mendex, of Barcelona (subject to be announced later).

State Board of Medical Examiners of New Jersey.—At a meeting of the State Board of Medical Examiners of New Jersey, held at Newark, N. J., October 1, 23 of the 28 physicians who took the State examination held at Trenton, N. J., September 16-17, were duly licensed to practise medicine in New Jersey. The following medical colleges were represented by the candidates:

Baltimore Medical College	3
College of Physicians and Surgeons of Baltimore.	3
Columbia University, Medical Department	3
Baltimore University, School of Medicine	2
Hahnemann Medical College and Hospital of Philadelphia	2
Jefferson Medical College	2
University of Naples, Italy	2
Boston University, School of Medicine	1
Columbian University, Medical Department	1
Dartmouth Medical College	1
Medico-Chirurgical College of Philadelphia	1
Shaw University, Medical Department	1
University of Montpelier, France	1
University of the South, Medical Department	1
University of Turin, Italy	1
University of Vermont, Medical Department	1
Woman's Medical College of Pennsylvania	1
Yale University, Medical Department	1
	28

The percentage of rejections for the September examination was 18.

Beginning with the examination in June, 1903, each applicant for examination will be required to file with his application a recent photograph of himself, with autograph signature, duly attested before and under the seal of a notary. In the matter of interstate reciprocity of medical license, the policy of the Board in endorsing the licenses issued by other States whose examining requirements are substantially the same as those of New Jersey, provided that the applicant fully meets the academic and medical requirements of the State, is gaining favor both with the profession and with other State Boards. This policy places the admission of an applicant upon the basis of his personal fitness and the thoroughness of his examination, which is believed to be the fairest and the most equable method of endorsement so far devised.

Obituary.—Dr. Alonzo E. Cherry of Oneida, N. Y., died Sunday, at the age of seventy-five years. He was very prominent in Masonic circles throughout the State, had served fifteen years as Master of Oneida Lodge, was Past High Priest of Doric Chapter, R. A. M. and Past Patron of Oneida Chapter, O. E. S.

Dr. Thomas Wilde, who had been in active medical practice in Brooklyn for thirty-five years, died on Sunday at his home, 121 Seventh avenue, in that borough, in his sixty-fifth year. He served in an Iowa regiment in the Civil War. He was a member of the Kings County Medical Society and of the New York Physicans' Mutual Aid Society. He was one of the founders of the Carleton Club and chairman of the Interclub Whist League and the Brooklyn Whist Club.

Dr. Bertram Spencer, Professor of Medical Jurisprudence in the Medical Faculty of Toronto University, died last week. Dr. Spencer met with a street railway accident about a week prior to his death; erysipelas had set in of which he died.

Suddenly, at Rahway, N. J., on Thursday, Oct. 2, died Dr. Charles H. Meeker, aged seventy-seven years.

Dr. E. Standlee, formerly Dean of the American Medical College, member of the State Board of Health, President of both the National and State Medical Associations, and one of the founders of the new John King Hospital, now in the course of erection, is dead at St. Louis, aged forty years.

Capt. Frederick C. Jackson, an assistant surgeon in the army, is reported to have died of morphine poisoning at Manila. Capt. Jackson went to the Philippines nine months ago, after a long leave of absence, granted because of a gunshot wound in the knee.

Dr. Abel Mix Phelps died Monday afternoon in the Post-Graduate Hospital. He had been suffering from a malignant disease of the omentum, and was operated upon last Saturday, some of the most prominent physicians in this city being present. Dr. Phelps was fifty-one years old, and was born in Vermont. After graduation from the University of Michigan he was appointed surgeon of the Vermont Central railway, and it was at this time that he took up the study of orthopedic surgery, for which he became famous. In 1880 he went to Europe and studied for four years in the leading medical schools over there. Upon his return to this country Dr. Phelps was appointed to the chairs of orthopedic surgery which he originated, in both the Universities of Vermont and New York. In 1887 he was made chief orthopedic surgeon in the Post-Graduate Hospital. The same year Dr. Phelps was elected Vice-President of the New York State Medical Society, and three years later he was chosen as its President. He was a visiting surgeon to the New York Hospital, and together with Mr. and Mrs. Herbert Turner established the Daisyfield Hospital for Crippled Children at Englewood. In 1895 Dr. Phelps married Miss Cora Bedell of this city, who with two children survives him. He was a member of the Lotos and American Yacht Clubs.

Dr. Morris J. Asch, of No. 5 West 30th Street, this

city, died Sunday at his sister's home at Irvington-on-Hudson. He was seventy years old, and about two years ago suffered a stroke of apoplexy. He has not practised for over a year. Dr. Asch was a graduate of Jefferson Medical College of the class of 1855, and, offering his services at the outbreak of the war of the Rebellion, he was attached to Sheridan's staff, and was the General's personal physician. In the early seventies he came to New York and built up a large and successful practice. An operation on the nose which is in general use in hospitals was originated by him, and is known by his name. He was a member of the County Medical Society, the Academy of Medicine, the Roman Medical Society, the Medico-Surgical Society, the American Laryngological Association, a surgeon of the New York Eye and Ear Infirmary, and of the throat department of the Manhattan Eye and Ear Hospital. He was a member of many clubs, among them the Union, University, New York Yacht (to which organization he was surgeon), Army and Navy, Century, the University of Pennsylvania Association, the Pennsylvania Society, and the Blooming Grove Park Association.

Dr. Horace B. Lackey, a prominent physician of Scranton, died Sept. 30 at the Medico-Chirurgical Hospital, Philadelphia, where operation had been performed in the hope of saving his life. His age was fifty-eight years. He was graduated from Bellevue Medical College about thirty years ago.

Dr. John Byrne, one of the best-known physicians in Brooklyn, died on Wednesday at Montreaux, Switzerland. In February last Dr. Byrne retired from active practice, and with his wife and two daughters went to Europe, his intention being to spend one or two years abroad. He was in his seventy-seventh year, having been born in Ireland in October, 1825. He was graduated from the Edinburgh Medical University in 1846, and came to America in 1848 and settled in Brooklyn. He was one of the founders of the Long Island College Hospital and organized St. Mary's Female Hospital in Dean Street. He took the lead in the establishment of the great St. Mary's General Hospital, and since its foundation has been President of the faculty and chief surgeon of the institution. He was widely known in the profession as a gynecologist, and a few years ago was elected President of the American Gynecological Society at a congress in Washington. In 1876 the electrothermal battery he had invented was exhibited at the Centennial Exhibition in Philadelphia. Dr. Byrne was an enthusiastic advocate of the use of his electrocautery in the treatment of cervix carcinoma, and it was a pleasure to witness the ease and celerity with which he operated. He also invented a number of surgical instruments. In 1889 Dr. Byrne published clinical observations on 400 cases of cancer.

Among the members of the medical profession in foreign countries who have recently died are Dr. Josef Bergson, formerly Privat-docent of internal medicine in the University of Berlin, and author of writings on ritual circumcision, asthma, general narcosis, and brachial neuralgia, aged nearly ninety; Dr. P. Delacour, Director of the Medical School of Rennes, in which he was formerly Professor of Clinical Medicine, aged seventy-six; Dr. Riant of Paris, Honorary General Secretary of the French Medical Association, and author of numerous works on hygiene, overpressure in schools, physical exercise, etc.; and Dr. E. Teinturier of Paris, a well-known alienist and a brilliant medical journalist, who was for many years a constant contributor to the Progrès Médical, aged sixty-three.

CORRESPONDENCE.

MEDICAL TERMS AND GREEK DERIVATIONS.

To the Editor of the MEDICAL NEWS:

DEAR SIR—Allow me to say a few words on the editorial upon this subject in your esteemed journal of August 9, 1902. First I wish to thank you for having honored me by taking notice of my modest paper, "Greek in Medicine."

Some years ago I had a conversation with Dr. Jacobi, during which he asked: "What is your object in devoting so much time and labor to the Greek question?" When I answered that I was simply working for truth and science, he jokingly said, "Such fools as you are becoming more and more scarce in the world."

I had quite a correspondence with Professor Waldeyer, part of which I took the liberty to publish because I felt that the remarks of our eminent colleague did him honor.

To Professor Waldeyer I wrote that I did not wish to appear as a reformer of our onomatology, as many have done from time to time only to add more and more confusion to the deplorable state of things already existing. My idea was simply to publish, with the aid of colleagues of the University of Athens, a complementary lexicon for every medical lexicon, giving the correct terms wherever unscientific pseudo-Greek or hybrid words were in use, and to furnish explanations where such might appear useful.

Let me give a few examples: *Gastroptosis—recte gastroptosia*, a feminine noun which ends in sis, xis and psis, as the second component remains unchanged when the first component is a preposition; *e. g., proptosis, periptosis, diagnosis;* but if the first component is not a preposition, then in composition the ending is changed into *sia*, as *eupraxia, apraxia, palingenesia, hierognosia* and also *gastroptosia*. To add paradigmata which are familiar to every one, I may select *opsis—autopsia*, not *autopsis; pexis—nephropexia*, not *nephropexis*.

Nobody need adopt at once these correct terms, at least not without referring to the incorrect ones which have been in use; but I am certain that every one of us who likes correctness and beauty of language would welcome the choice offered in the supplementary lexicon. The advantages of such a work are pointed out in the paper read in Baltimore on "Greek in Medicine." In regard to this idea Professor Waldeyer wrote: "I am now convinced that you are on the right track. Without causing disturbances, you are preparing the way for future new formations with which I sympathize fully."

Nothing can be farther from my mind than to substitute Greek terms where historical and correct Latin terms are in use. Such Latin terms should by all means be retained.

Kindly permit me to say that you have accused me of mentioning the word "telephone" as incorrect. In reality this is a correct Greek word which cannot be improved.

This opportunity is too inviting not to say a word about the most disgraceful abomination—"appendicitis." Of those who tell us that it has come to stay, we say, "Lord, forgive them, they know not what they do."

To typhlon enteron is the cecum; in German, the Blinddarm. *Peri* means on, upon, touching. Since there is nothing on the cecum but the appendix, the word *perityphlitis* is as exact a designation as we can wish; there can be no misunderstanding it; nothing else can be meant but inflammation or affection of the appendix vermiformis; and *perityphlitis* was the term used all over the scientific world until some ignoramus (he may have been a good surgeon) invented the horrid "appendicitis," ever since when most of us are anxious to furnish evidence that there is some truth in Darwin's hypothesis.

But "appendicitis" has by no means come to stay. Men with love for correctness and beauty of language in England and Germany write now *perityphlitis*, and before long we shall do likewise. At all events, it will be to our advantage to do so. A. ROSE.

SOCIETY PROCEEDINGS.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Fourteenth Annual Meeting, Held in Washington, D. C., September 16, 17 and 18, 1902.

The President, Dr. Edwin Ricketts of Cincinnati, Ohio, in the Chair.

An address of welcome was delivered by Surgeon-General George M. Sternberg (retired) of Washington. This was responded to by the President.

Disease of the Pelvis in the Young and Unmarried.—Dr. C. L. Bonifield of Cincinnati, O., dealt with gynecological diseases which occurred in women who had never had sexual intercourse. Physicians were now more frequently consulted about such troubles but this was probably because the modern woman bears discomfort less well than her ancestors. Undeveloped uterus, disorders of menstruation, tuberculous disease of appendages and acute displacements are the most common affections in these patients. When menstruation does not make its appearance at the age it is expected, a thorough investigation of the general condition of the patient is indicated. Pregnancy is always to be borne in mind as a possibility. Dysmenorrhea might be constitutional or local. Local treatment is not required in the former, and the endometritis which causes a majority of the latter can often be relieved by hygienic treatment. Menorrhagia is often caused by anemia, or an interference with the circulation of the liver, heart, or kidneys. The uterus whose development has been arrested at the time of puberty is the most important type of undeveloped uterus. It is usually sharply anteflexed, but occasionally retroflexed, and the cervix is long and narrow, and the body dilated. Dysmenorrhea is a prominent symptom. Thorough dilatation, curettage and tight packing, repeated one or more times, if necessary, constitute the best treatment. Tuberculosis of the pelvic peritoneum is often mistaken for typhoid fever or appendicitis. Acute prolapse or retroversion of the uterus may be found as the result of a fall or heavy lifting in young women of lax fiber.

Removal of the Gall-bladder Through the Lumbar Incision.—Dr. Walter P. Manton of Detroit, Mich., reported the case of a patient thirty-eight years of age, the mother of five children (two abortions), never robust, but able to attend to her domestic duties. She had suffered from a number of gastric attacks, but there had been an absence of symptoms pointing to disease of the biliary tract. Examination showed a loose left kidney, while the right kidney, displaced downward and inward, appeared to be double its normal size and had certain projections which led to the diagnosis of nephroptosis, with probably cystic metamorphosis of the kidney. At the operation, through the nephropexy incision, the fatty capsule of the kidney was found to be embedded in adhesions, which had given rise to the appearance of the enlargement. The kidney, which was normal in size and structure, was delivered on the back and placed astride the wound. Below the kidney pouch a distended gall-bladder, containing fluid and nineteen gall-stones the size of hazel-nuts were found surrounded by adhesions. This was enucleated, tied off at the cystic-duct, and removed. The kidney capsule was split and peeled off to the lateral line, fixation sutures were introduced, and the organ was returned to its place. A strip of gauze for drainage was carried from the upper angle of the external wound to the stump of the cystic-duct. The patient made a good recovery.

Abdominal and Pelvic Surgery and Drainage.—Dr. Joseph Price of Philadelphia, Pa., said that the more progressive and successful specialists practised most extensive sponge packing or drainage. The modern operator did the same by his gauze pack or the dry operation. A number of operators, doing fairly good work by the suprapubic route, condemned or partially rejected drainage. Some of them, he said, never learned and never would learn how to handle drainage well. After abandoning the suprapubic route, these men were placed in the uncomfortable position of admitting that drainage did what they had refused to do by suprapubic surgery. About all the reported operations were coming from operators opposing drainage or practising it only when they were compelled to do so.

Vaginal Route for Operations on the Uterus and Appendages.—Dr. J. H. Branham of Baltimore, Md., said that pelvic inflammation was the commonest condition threatening the life of gynecological patients, caused by gonorrhea, abortion, tuberculosis, and other conditions not always discernible. In such the vaginal method of treatment made its best showing. He had operated on more than one hundred patients using this method, and had had three deaths only. He believes that vaginal drainage is the natural method. It is far more effective and safer. Opening through the vagina was associated with a minimum amount of shock and hemorrhage, and was thus indicated in extreme cases associated with severe toxic symptoms.

Abdominal Section and the Use of Ice.—Dr. F. F. Simpson of Pittsburg, Pa., recommended the local use of ice for the relief of pains to prevent or control peritonitis. He began the use of ice after observing its effects in several hundred cases of pelvic peritonitis of all grades prior to operation. He said: "After having seen many grave cases of this kind yield so favorably to this measure, and having seen a few of them die later from peritonitis following an abnominal section, which removed the bulk of filth, leaving but little behind in a fairly clean cavity, it seemed to me that with the same infecting organisms active in large numbers before operation, and in small numbers after operation, we might expect like results if the same treatment were employed in the two classes of cases. And, further, that by beginning the use of ice before peritonitis had actually developed, we might succeed in preventing that condition." As to theoretical objections, he said that they disappeared when physicians used ice. No injury to the skin had ever followed its use; the healing of wounds had not been retarded by it, and no depression of the general system had been observed. He ascribed the good effect of cold to its deep penetration. This is based on the known effects of cold on inflammation; on the observations of laboratory workers who had showed that cold actually penetrated deeply into the human cavities and tissues; and upon his own experiments on dogs, which showed that by the local use of ice there could be obtained within the abdominal cavity such a degree of cold as would retard the growth of pathogenic bacteria and contract the blood lymph channels, thus depleting the hyperemic areas and checking serous weeping into the peritoneal cavity without damage to the tissues.

Tetanus, Following Abdominal Section, Due to Infected Ligatures. The Angiotribe in Abdominal Surgery.—Dr. Walter B. Dorsett of St. Louis, Mo., detailed at length two cases which were of women who had undergone ventrofixation of the uterus, or adhesions of the uterus to the surrounding tissues, due to previous inflammatory conditions. The material used for fasten-

ing the uterus was kangaroo tendon. This was the source of infection. He had used the angiotribe successfully twenty-five times, as follows: Abdominal hysterectomy, ten times; hemorrhoids, once; pus tubes, five times; extrauterine pregnancy, four times; dermoid cyst, once; ovariotomy, three times, and once in a case of vaginal hysterectomy. He concluded that (1) patients upon whom it had been tried suffered less post-operative pain; (2) no adhesions to stumps had followed; (3) no secondary hemorrhage had followed; (4) it can be applied, when two instruments were used, alternately by the operator and the assistant without the fear of the slipping of a ligature knot, and in less time.

Exploratory Laparotomy.—Dr. Walter B. Chase of Brooklyn, N. Y., said that physical signs and rational symptoms of certain diseases of the contents of the peritoneal cavity being often insufficient for purposes of diagnosis, surgical intervention, might be necessary to ascertain the exact state of affairs. Abdominal section for diagnostic purposes is of comparatively recent origin. Its growth has been progressive, but the limitations as yet are not clearly formulated. In chronic cases there might be ample time for study and analysis, with comparison of the progress and fluctuation of symptoms, which would furnish valuable data for forming deliberate judgment. Surgical intervention was looked upon much more favorably by a discriminating public to-day than formerly, so that the suggestion by the surgeon that an operation was required found a more ready response by the patient or patient's friends.

Ruptured Pus Tubes.—Dr. Charles Greene Cumston of Boston, Mass., spoke of two methods of dealing with pus tubes; one by posterior colpotomy, followed by incision and drainage of the sac, while the other was to remove the tube, and if the condition was bilateral to do a total hysterectomy. Drainage of the perforated pyosalpinx through the vagina was naturally the easiest and least dangerous method. The vagina was incised, and then the pyosalpinx and the walls of the pus tube might be united to the vaginal wall by means of forceps. The best treatment for perforated pus tubes is by abdominal incision. The extirpation of perforated pyosalpinx is particularly urgent in those patients in whom drainage by posterior colpotomy had been unsuccessful, and also in tuberculous lesions of the tubes.

Pelvic Abscess and Its Treatment.—Dr. Herman E. Hayd of Buffalo, N. Y., spoke of a class of cases in which vaginal incision and drainage, supplemented by curettage should be first employed to eliminate the pus, and then an abdominal section should be done later to relieve the patient of her suffering. Large collections of pus, low down in the pelvis, in a moribund woman are best evacuated through the vagina. He spoke in reference to strong women who were suffering from acute streptococcic infection, who had high temperatures with great pain and tenderness, and under ordinary circumstances, ready to submit to major operations, and in whom an acutely tender mass could be felt low down in the pelvis on one or both sides, at times filling up the cul de sac of Douglas. For these early vaginal incision was imperative and was without danger. The mass would diminish in size; the danger of rupture would be minimized, the pain and symptoms would subside.

Apprentices in Operative Gynecology.—Dr. G. Williams of Philadelphia said that the modern hospital training, so far as he himself had observed, was not sufficient for the practical training in gynecological technic. He spoke of the desirability of the modifications in present hospital arrangements looking towards that end. Radical measures, he thought, were alone justifiable in the treatment of pus tubes and that the abdominal route was to be preferred. The vaginal route was simply a makeshift. Whereas the mortality from this latter procedure might be small, the invalidism was very large. Other institutions and other surgeons usually perfected the work, if possible.

Bi-inguinal Celiotomy for Retroversions.—Dr. A. Goldspohn of Chicago in speaking of this operation for complicated retroversions of the uterus claimed that (1) surgical treatment was advisable, since it could do no harm and its good results would not be modified by gestation; (2) the operations in vogue do not meet the ideal requirements; (3) the evolutionary history of the round ligaments showed them to be the ideal structures to utilize; (4) their best service could be gained through the inguinal canals; (5) the lateral inguinal ring gave ample room for the operative technic, with cutting and without fear of subsequent hernia; (6) the histories of 107 cases showed its efficacy; (7) in all the cases recorded the uterus was retained with pronounced anteversion and good involution following childbirth.

Starvation Treatment of Appendicitis Irrational.—Dr. John B. Deaver of Philadelphia said his experience of ninety-eight cases for two and a half months past had furnished the objections to the rest or starvation treatment. An early operation, preferably in the stage of appendiceal colic, was the only rational procedure he had found, and was the best treatment to reduce the mortality in acute appendicitis. The so-called rest treatment failed to check inflammation of the peritoneal structures and in the majority of cases did harm to the patient. The statistics he presented supported the argument. He was willing to grant that operation in the presence of an acutely inflamed general peritonitis was attended by great risk to life, and therefore it was often wise to defer operation hoping that the inflammatory process would become localized. This was often his practice; but the starvation plan of treatment promised no more in such cases than the mere common practice of abstaining absolutely from giving opium, keeping the bowels freely open by cathartics, or, as some physicians preferred, a hydragogue cathartic, which was both antiseptic and germicidal, giving nourishment by the rectum, when the stomach was tolerant, and using ice or heat locally in the shape of poultices or hot turpentine stupes.

Presidential Address.—The subject was "Our Shortcomings: Let Us Reason Together," delivered by Dr. Edwin Ricketts, Cincinnati. The general practitioner, he said was the backbone of medicine. It should not be otherwise. With just and co-equal considerate relations the best interests of the physician and specialist were not to be severed. With changed relations toward the general practitioner complications were sure to arise. Abdominal surgery and gynecology in the hands of all operators was being accompanied with a higher mortality than was true of that done by special workers. Reasons were advanced why the physician and all those engaged in the practice of specialties should enter the political arena. It would teach them what organization was, what and how power can be wielded for good. It would result in pronounced efforts for the organization of the medical profession which in due time was to command respectful consideration from the national, State and county governments. Such would make a free and independent profession. The relationship of the neurologist as bearing on special work should be better appreciated. The neurologist should be called in consultation oftener, and he, in turn, should consult with the surgeon before sending any of his patients to an institution for partial or permanent detention. He urged the appointment of a national secretary of medicine, which, he believed, would put medicine on its highest and broadest plane. This would mean dignity, higher regard, influence, and an equitable financial remuneration.

Appendicitis Cases and the Lessons They Teach.—

Dr. Miles F. Porter of Fort Wayne, Ind., reported eleven cases in detail.

Four Cases Illustrating the Difficulties of Diagnosing Appendicitis.—Dr. William Wotkyns Seymour of Troy, N. Y., reported four cases in abstract.

Intra-uterine Fibroids Complicating Pregnancy, and Retained Placenta Associated with Intra-uterine Fibroids Complicating Pregnancy.—Dr. M. A. Tate of Cincinnati, O., collected thirty-nine cases from literature, and reported two personal experiences. Analyzing these forty-one cases, he showed that in nine cases the names of reporters were given. In six the tumor became gangrenous; hemorrhage was a prominent symptom, occurring in eighteen cases; three polyps were expelled spontaneously; seven polyps were removed; in three the polyp was not removed; in ten labor was normal; in four labor was difficult; in two the child was destroyed; one was a case of turning, and the other a breech; in four the tumor was discovered before labor, in all of the rest, after; four cases were reported in which labor set in before time; two were at the fifth, and two at the seventh month. The following complications were reported: Septicemia, eight; measles, one; puerperal mania, one; retained placenta, four cases. Cold applications, iodides, ergot, whiskey, vinegar, packing of uterus with gauze, and removal of tumor. Causes of death: hemorrhage, three; sepsis, three; peritonitis, one; and collapse one, making in all eight cases. If all of the other cases, including the nine without histories, recovered, there would be thirty-three recoveries and eight deaths, a mortality of 19½ per cent.

Abdominal Section During Pregnancy.—Dr. J. Henry Carstens of Detroit, Mich., had had the following complications of pregnancy: Appendicitis, five; hernia, one; fibroids, four; abdominal hysterectomy, one; vaginal hysterectomy, three; ovariotomy, three, and miscellaneous three, or altogether, twenty cases and five deaths; mortality 25 per cent. This included all his cases from many years back. To-day he thought the mortality would be less. Acute diseases which required prompt operation could be operated upon notwithstanding pregnancy. Tumors that would interfere with labor should be operated on. Tumor above the brim of the pelvis, or which could be shoved above the brim of the pelvis, need not be interfered with; still, as a rule, all tumors took on a very rapid growth during pregnancy, and the increase in size might interfere with the various functions of life and then surgical intervention was required.

Deciduoma Malignum.—Dr. Lewis S. McMurtry of Louisville, Ky., reported a case. Clinically the disease presented a well-defined history. The disease appeared after abortion or labor, the tumor being situated upon the endometrium of the body of the uterus. Of 128 recorded cases, in 40 per cent. the disease appeared after mole pregnancy. Hemorrhage was the first and most conspicuous symptom, and was not controlled by curettage. The discharge was usually offensive, especially in the advanced stage. The disease had a marked tendency to early metastasis; the lungs and vagina were the most common sites for metastatic deposits. The disease was so rapid in its course that the period from first symptoms until the death of the patient was only a few weeks or months. The only successful treatment was the early and complete extirpation of the uterus. In the author's case the disease appeared in a woman of thirty-five immediately after abortion. Persistent hemorrhage and fetid discharge from the uterus prompted operative intervention. The uterus and its appendages were removed by abdominal hysterectomy, and the patient made a prompt recovery.

Perforating Ulcer of the Duodenum.—Dr. John B. Murphy of Chicago reviewed the etiology, pathology, and diagnosis of duodenal ulcers, and considered the surgical treatment of perforation. An analysis of his twenty collected cases showed: Average age in the thirteen cases in which age was stated was thirty-five years. Of the nineteen cases, five were females and fourteen males. Of the twelve cases in which it was stated whether or not there were symptoms present previous to perforation, in nine they were present previous to perforation; in three there were no previous symptoms; in only five cases did the symptoms point to the stomach or duodenum; in six cases it was stated that the perforations were sutured; of these two died, three recovered. In one the result was not stated. In eight cases drainage only was used; of these seven died, and one recovered. He concluded the diagnosis of perforating ulcer was difficult, or, better, practically impossible without an exploratory laparotomy. In many cases there was no evidence of duodenal disease previous to the perforation. The most important physical sign, in addition to those of perforative peritonitis from perforations in other portions of the intestinal tract, was the flatness of the superficial piano percussion note in the right hypochondrium. The leucocytosis in one case, the only one in which it was seen, was pronounced, showing an inflammatory condition, in contradistinction to the usual absence of it in intestinal obstruction and fat necrosis of the pancreas. Leucocytosis, however, was not a necessary manifestation of perforation or of inflammation. It was often entirely absent in typhoid perforations. Collapse was absent in duodenal perforation except when associated with severe hemorrhage. Collapse was always secondary to abrasion or denudation of the endothelial covering of the peritoneum, which abrasion permitted of rapid absorption. In all cases of perforative peritonitis operation should be done at the earliest possible moment after the perforation, and experience showed that the mortality was in direct ratio to the length of time that elapsed between the perforation and the operation. Of thirteen cases operated upon more than thirty hours after perforation, all terminated fatally, while in twelve cases, where less than thirty hours had elapsed, 66⅔ per cent. recovered. The operation must be complete—that is, it must be pursued to an effective suture of the perforation. Drainage was insufficient, as of eighteen cases treated by drainage alone all died. The suture of the opening can be easily inserted, as in 98 per cent. of the perforating ulcers into the peritoneum the opening was in the first portion of the duodenum, its most accessible portion. Where duodenal perforation was suspected, the incision should be through the right rectus muscle. It could then be carried upward to the costal arch, or downward to the symphysis pubis without dividing any of the transverse muscles. The incision through the rectus muscle was the one which he commonly made in operating for appendicitis. It could be enlarged upward or downward without interfering with the muscle fibers. Drainage or no drainage was a matter of personal election, influenced, more or less, by the pathological condition present at the time of the operation. The prognosis depended upon the virulence of the peritonitis produced; the time the material had been allowed to remain in the peritoneum; on the presence or absence of blistering or abrasion of the peritoneum at the time of operation.

Peritoneal Tuberculosis.—Dr. Rufus B. Hall of Cincinnati, Ohio, maintained that tuberculosis of the peritoneum in women is not a rare affection. It occurs often enough to make it necessary to consider it in the differential diagnosis of all obscure diseases in the pelvis and abdomen. In a large majority of cases there were no appreciable manifestations of tuberculosis in other parts of the body. The symptoms simulated several other conditions in the pelvis and abdomen. The dis-

eases most likely to be confounded were the recurrent attacks of appendicitis of the catarrhal form, small fibroid tumors, with old tubo-ovarian disease, and recurrent attacks of pelvic inflammation. If the case is one of tuberculosis, however, the temperature chart will suggest this disease if the record is taken every four hours for a period of ten to fifteen days. In no other condition is there such exact regularity in the afternoon rise of temperature. Cases of tuberculosis of the peritoneum in which there was encysted dropsy, or an accumulation of pus or serum, should be operated on; after the necessary surgical repair the abdomen should be drained. Vaginal drainage in women is preferable, because it gives perfect drainage and prevents ventral hernia.

Surgical Treatment of Perforated Gastric Ulcer with General Infection of the Peritoneal Cavity.—Dr. H. Howitt of Guelph, Ont., said that acute perforation, with general infection of the abdomen usually caused by the acute, round ulcer, but might occasionally take place in the course of a chronic ulcer, especially when it was situated on the anterior wall. All the phenomena of acute perforation might result in either form of ulcer in a more indirect manner by the formation of a localized abscess, which afterward ruptured internally. In peritoneal perforation with general infection medicinal remedies are useless. Early, bold, and thorough surgery alone can save the patient. When patient is anesthetized an incision from ensiform cartilage to pubis should at once be made, the bowels eviscerated and protected, then the stomach examined and the perforated part brought out of the wound as far as possible and the field guarded by sponges. The perforation might be excised, but it is generally merely closed with two or more rows of silk sutures. Every pouch and corner in the abdomen should be thoroughly inspected and flushed clean. Drainage tubes are used, not placed in the wound, but through stabs, one at the back in each flank depression below the kidney, and one in the lower abdomen to the right or left of the incision for the pelvis. After the intestines are replaced and omentum is spread over them and fastened below the lower end of the wound with a suture or two, the incision is closed as quickly as possible and dressed. In a desperate condition of the patient, a pint of peptonized milk or other suitable liquid food may be injected into the jejunum during operation.

The author said in conclusion that he was aware that many surgeons strongly objected to evisceration, but he maintained that it was impossible by any other known method to make certain that the cleansing of the peritoneum had been done thoroughly. Imperfect toilet is followed by more shock, and is vastly more dangerous than hours of properly-managed evisceration.

Carcinoma of the Cervix.—Dr. L. H. Dunning of Indianapolis, Ind., presented a summary of sixty-two cases operated upon by hysterectomy. These cases showed on applying the accepted test of time—five years—that the author had had an encouraging number of cures; they also showed the desirability of early operative procedure. The operative methods employed were indicated, and the author's views of the same were discussed. He reported five cases of carcinoma of the cervix uteri in which the women were alive five years after hysterectomy.

Officers.—The following officers were elected for the ensuing year: President, Dr. L. H. Dunning, Indianapolis, Ind.; First Vice-President, Dr. Marcus Rosenwasser, Cleveland, O.; Second Vice-President, Dr. Herman E. Hayd, Buffalo, N. Y.; Secretary, Dr. William Warren Potter, Buffalo, N. Y.; Treasurer, Dr. X. O. Werder, Pittsburg, Pa. Chicago, Ill., was selected as the place for holding the next meeting; time, September, 1903.

BOOK REVIEWS.

THE PRACTICAL MEDICINE SERIES OF YEAR BOOKS. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of GUSTAVUS P. HEAD, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume VIII. Pediatrics and Orthopedic Surgery, Edited by W. S. CHRISTOPHER, M.D., JOHN RIDLON, A.M., M.D., SAMUEL J. WALKER, A.B., M.D., July, 1902. The Year Book Publishers, Chicago.

THIS volume of the Practical Medicine series contains an excellent short review of recent contributions to heredity in reference to pediatrics, which everyone interested in children's diseases will find of value. In the department of orthopedics there is an excellent description of Lorenz's method of treating congenital dislocation of the hip, which has a certain timeliness because of present-day newspaper interest in a celebrated case. There is an excellent abstract of Lovett's work on lateral curvature of the spine that is well worth the more permanent preservation it will receive in a manual of this kind. In general this volume is well up to the standard of the series. Some of the illustrations are rather poorly reproduced, and an improvement in this respect would add to the value of these handy manuals.

GENERAL PARESIS, Practical and Clinical. By ROBERT HOWLAND CHASE, A.M., M.D., Physician-in-Chief, Friends' Asylum for the Insane, Philadelphia. P. Blakiston's Son & Co., Philadelphia.

GENERAL paresis is undoubtedly growing in frequency in this country, as well as in Europe. Civilization and syphilization are undoubtedly producing their deadly effects. At the present time something more than one-fifth of the inmates of our insane asylums are suffering from general paresis. As these patients first come into the hands of the general practitioner, there is good reason for even the ordinary country physician to have some definite ideas as to the initial symptoms of the disease. It is in order to give such ideas simply, clearly and succinctly that this book is written. It seems to fulfill its object very well. The early symptoms of the disease in particular are described with care and minuteness, and always with a human interest, that makes them very practically suggestive. The illustrations serve to convey precious additional information. The question of prognosis is treated excellently, and all the possible causes of the disease find their due place. We feel sure that the book will meet the welcome it deserves from all those who appreciate the growing interest in this more and more important disease.

PHOTOGRAPHIC ATLAS OF THE DISEASES OF THE SKIN. By GEORGE HENRY FOX, A.M., M.D. Parts XIV, XV, XVI. J. B. Lippincott Company, Philadelphia and London.

THREE more fascicles of this excellent Atlas are to hand, and the pleasure in turning the pages of the earlier numbers is felt again in this series. Part xiv illustrates the following lesions: Lepra tuberculosa, mycosis fungoides facici, psoriasis exfoliata, dermatitis exfoliativa and favus. Part xv shows forms of epithelioma rodens, eczema manus, syphiloderma manus, rosacea hypertrophica and papilloma lineare; while Part XVI includes erythema bullosum scabies, dermatitis venenata, urticaria, and seborrhea, steatoma and milium.

As we have before said, the illustrations are of the first quality. The text is ample, practical and concise and the therapy most serviceable. The possession of such a work places within the grasp of the practitioner a dermatological clinic in itself.